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JOURNAL

OF THE

ANTHROPOLOGICAL INSTITUTE

OF NEW-YORK. (State) —^

"THE JOURNAL shall be a judiciously full Record of the Proceedings of the Institute, a Repository of such Papers or Abstracts of Papers, Communications, etc., as are brief and suggestive rather than exhaustive, or of present interest, illustrative of a subject in part, or designed to stimulate inquiry; also, analyses or abstracts of new works relating to Anthropology, acknowledgments of donations, and such facts, hints, and observations bearing on the subjects to which the Institute is devoted, as may be deemed worthy of record."—*Constitution of the Institute, Section IV.*

VOLUME I.

NEW-YORK:
WESTERMANN & CO., 471 BROADWAY.
TRÜBNER & CO., 60 PATER-NOSTER ROW, LONDON. ASHER & CO., BERLIN.
1871–72.

L. Soc. 120. N.Y. 12.1

CERTIFICATE OF INCORPORATION

OF THE

ANTHROPOLOGICAL INSTITUTE

OF NEW-YORK.

STATE OF NEW-YORK, } *ss.*
County of New-York, }

THIS will certify that the undersigned, being all of full age, and citizens of the United States, desire to associate themselves together and form a society, to be known in law by the name of THE ANTHROPOLOGICAL INSTITUTE OF NEW-YORK.

The particular objects of this society are the study of man in all his varieties, and under all his aspects and relations. Its special object will be the study of the history, conditions, and relations of the aboriginal inhabitants of America, and the phenomena resulting from the contact of the various races and families of men on the American Continent before and since the Discovery.

The physical characteristics, religious conceptions, and systems of men, their mythology and traditions, their social, civil, and political organizations and institutions, their languages, literature, arts, and monuments, their modes of life and their customs are specifically within the objects of the Institute.

It will further be the aim of this association to collect all manuscripts, books, and relics illustrating the several subjects above enumerated, to stimulate and encourage inquiry and research, particularly in unexplored American fields; and, by means of such publications as may be deemed proper, to utilize and disseminate the results of its investigations and efforts for the benefit of science and of man.

The number of trustees, directors, or managers who shall ma-

nage the affairs of this society shall be five, and the names of such trustees or directors who shall manage the affairs of the said society during the first year of its existence are as follows:

E. GEORGE SQUIER,
CHARLES C. JONES, JR.,
W. H. THOMSON,
JOHN G. SHEA,
H. T. DROWNE.

The location of this society shall be in the city, county, and State of New-York.

This certificate is made under the provisions of the Act of the General Assembly of the State of New-York, assented to April 12th, 1848, and of the acts amendatory thereof.

Done in the city of New-York, this 20th day of March, 1871.

E. GEORGE SQUIER,
J. C. NOTT,
CHARLES C. JONES, JR.,
HENRY R. STILES,
W. H. THOMSON,
JOHN G. SHEA,
ALEXANDER J. COTHEAL,
CHARLES RAU,
HENRY T. DROWNE.

Made, signed, and acknowledged in the presence of

JOHN A. WRIGHT,
Notary Public.

STATE OF NEW-YORK, }
County of Kings, } *ss.*

Be it remembered, that on this the 24th day of March, A.D. 1871, before me personally came E. George Squier, J. C. Nott, Charles C. Jones, Jr., Henry R. Stiles, W. H. Thomson, John G. Shea, Alexander J. Cotheal, Charles Rau, Henry T. Drowne, each to me known, and known to me to be the same persons described in and who executed the foregoing certificate, and severally acknowledged that they executed the same.

In testimony whereof, I have hereunto set my hand and affixed my official seal, the day and year last above written.

JOHN A. WRIGHT,
Notary Public, State of New-York.

I, George G. Herman, Clerk of the County of Kings, and Clerk of the Supreme Court of New-York in and for said county, (said court being a Court of Record,) do hereby certify that John A. Wright, whose name is subscribed to the certificate of proof or acknowledgment of the annexed instrument, and thereon written, was, at the time of taking such proof or acknowledgment, a notary public of the State of New-York, in and for the said county of Kings, dwelling in said county, commissioned and sworn, and duly authorized to take the same; and further, that I am well acquainted with the handwriting of such notary, and verily believe the signature to said certificate is genuine.

In testimony whereof, I have hereunto set my hand, and affixed the seal of said county and court, this 25th day of March, 1871.

GEORGE G. HERMAN,
Clerk.

(Indorsed.)

I hereby consent to and approve of the incorporation of the within-named society, and the filing of this certificate, this 27th day of March, 1871. ALBERT CARDOZO,
Judge Supreme Court.

(Indorsed.) Filed March 27, 1871.

STATE OF NEW-YORK, }
City and County of New-York, } *ss.*

I, Charles E. Loew, Clerk of the said City and County, and Clerk of the Supreme Court of said State for said county, do certify that I have compared the preceding with the original certificate of incorporation of the ANTHROPOLOGICAL INSTITUTE OF NEW-YORK, on file in my office, and that the same is a correct transcript therefrom, and of the whole of such original.

In witness whereof, I have hereunto subscribed my name, and affixed my official seal, this 27th day of March, 1871.

CHARLES E. LOEW,
Clerk.

CONSTITUTION AND BY-LAWS.

SECTION I.

OBJECTS OF THE INSTITUTE.

1. THE ANTHROPOLOGICAL INSTITUTE OF NEW-YORK has for its Object the Study of Man in all his Varieties, and under all his Aspects and Relations.

2. Its special Object is the study of the History, Conditions, and Relations of the Aboriginal Inhabitants of America, and the Phenomena resulting from the contact of the various races and families on the American Continent, before and since the Discovery.

3. The Physical Characteristics, Religious Conceptions, and Systems of Men; their Mythology and Traditions; their Social, Civil, and Political Organizations and Institutions; their Language, Literature, Arts, and Monuments; their Modes of Life and their Customs, are specifically within the objects of the Institute.

4. The Institute will seek to collect all Manuscripts, Books, and Relics illustrating these several subjects; to stimulate and encourage inquiry and research, particularly in unexplored American fields; and by means of such Publications as may be deemed proper, to utilize the results of its investigations and efforts for the benefit of Science and of Mankind.

5. It recognizes the widest range of discussion, and a complete toleration of individual opinions on all subjects within the scope of the Institute's objects.

SECTION II.

MEMBERS.

1. The members of the Institute shall consist of resident members, including all living within sixty miles of New-York; non-resident members, including those not residents, living in the United States; foreign and honorary members.

2. Each resident and non-resident member shall pay into the treasury of the Institute, on acceptance of membership, and before the issue of his diploma, ten dollars, which shall include his dues for the first year, and five dollars annually thereafter, which shall entitle him to receive all the publications of the Institute without further cost. The failure to pay the annual dues for one year by any member being in the United States, will be regarded as an act of resignation. Non-resident members have the right to vote, if present, at any meeting of the Institute.

3. Foreign members are not required to pay an initiation or other fee, but will be entitled to the Institute's publications in virtue of an annual payment of five dollars.

4. Honorary members are limited to ten in number, of whom five may be elected during the first year of the Institute's existence, two the second, two the third, and one the fourth; and no further elections for honorary members shall be had, except to fill vacancies occasioned by resignation or death. Honorary members are exempt from all fees and dues, and are entitled to receive the publications of the Institute free.

5. Any member of the Institute, resident, non-resident, or foreign, may be excluded from membership by a vote of three fourths of the members present at any regular meeting, on complaint of any ten members, which complaint must be laid before the Institute three months in advance of any action thereon.

6. Resident, non-resident, and foreign members may be elected at any regular meeting of the Institute, by choice of three fourths of the members voting; honorary members by a vote of seven eighths; and the balloting shall invariably be by white and black balls, and for each nominee or candidate separately. It shall not be in the power of the society to suspend this provision by a unanimous vote or otherwise.

7. All nominations or applications for membership, and all resignations, must be according to the forms prescribed in the by-laws.

8. Diplomas shall be transmitted to persons elected as resident and non-resident members on receipt of their acceptance of membership, and on payment of fees and dues; and shall be sent to foreign and honorary members on receipt of their acceptance of membership. They shall be signed by the president and at least one vice-president, and the secretaries, and shall bear the seal of the Institute.

SECTION III.

OFFICERS OF THE INSTITUTE.

1. The officers of the Institute shall consist of a president; two vice-presidents; an executive committee of five members; a recording, a foreign, and a domestic secretary; a treasurer and a custodian, all of whom must be resident members.

2. These officers shall be elected by a majority vote, and shall hold their offices for a term of two years. Vacancies may be filled at any second regular meeting of the Institute after that in which such vacancy shall have been announced.

3. At the November regular meeting of the Institute for the year with which the term of office of the officers may expire, a committee of five members shall be appointed, none of whom shall be officers, to prepare nominations for officers for the ensuing term, and report the same to the December regular meeting of the Institute, for its action; and at such December regular meeting the election of officers shall be held. The annual meeting of the Institute shall be held on the second Wednesday of January of each year, unless otherwise ordered.

4. The president shall preside at all meetings of the Institute preserve order, and enforce its constitution and by-laws. He shall not be eligible for more than two consecutive terms, and at each annual meeting will be expected to give a review of the progress of anthropological science during the year then ending.

5. In the absence of the president, the vice-presidents shall take the chair in their order; but if none of them be present, the duty shall devolve on the members of the executive committee in their order.

6. The president, vice-presidents, and other officers of the Institute shall be *ex-officio* members of the executive committee, to which shall be referred all nominations for membership for favorable or adverse report; it shall act as a committee on publications, and admit or exclude from its memoirs any papers that may have been read or presented, unless otherwise directed by a two-thirds vote of the members present at any regular meeting; shall authorize expenditures; provide proper places of meeting; have entire charge and direction of the affairs of the Institute; and do all such acts and deeds as shall appear to them essential to be done for the purpose of carrying out the objects and views of

the Institute. But no debt shall be contracted or obligation incurred beyond the amount of unappropriated money actually in the treasury.

7. The recording secretary shall keep a full and impartial account of the proceedings of each meeting of the Institute, which, after approval at the next succeeding meeting, shall be legibly entered in a book to be provided for the purpose, which shall be open for the inspection of all members of the Institute, and for the use of the executive committee. To this end he may employ, under the direction of said committee, a stenographic reporter, who shall not be a member of the Institute, who shall report all proceedings *in extenso;* and also a copying clerk. He shall also give due notice by circular of all meetings of the Institute, transmit documents, publications, etc.

8. The foreign secretary shall take charge of, and transmit, all diplomas of membership to foreign members, and conduct the foreign correspondence of the Institute.

9. The domestic secretary shall do the same in respect of domestic membership and correspondence.

10. The custodian shall receive and preserve, in such places as may be directed by the executive committee, all books, pamphlets, maps, papers, specimens of art, or relics of antiquity as may come into the possession of the Institute, by purchase or otherwise; and keep a catalogue of the same, with all needful information concerning them.

11. The treasurer shall collect and deposit with some bank or banker, to be designated by the executive committee, all fees, dues, and donations, and other moneys, accruing to the Institute, receipting for the same, and disburse the same on the warrant of the chairman and secretary of the executive committee, and shall report to the Institute once a year, or oftener if desired. His accounts shall be audited by a committee of three members, not officers of the Institute, who shall be chosen at the regular meeting of the Institute next preceding the annual meeting, and the report of said committee shall be read at the annual meeting.

SECTION IV.

PUBLICATIONS AND DONATIONS.

1. The publications of the Institute shall be under the direction of the executive committee, and shall consist of—

a.—Memoirs of the Anthropological Institute of New-York.

b.—Journal of the Anthropological Institute of New-York.

2. The Memoirs shall be in large and clear type, and contain only such papers coming before the Institute, or translations accepted or authorized by it, as shall be mature, exhaustive, or of permanent value.

The Journal shall be a judiciously full record of the proceedings of the Institute, a repository of such papers or abstracts of papers, communications, etc., as are brief and suggestive rather than exhaustive, or of present interest, illustrative of a subject in part, or designed to stimulate inquiry; also, analyses or abstracts of new works relating to anthropology, acknowledgments of donations, and such facts, hints, and observations bearing on the subjects to which the Institute is devoted as may be deemed worthy of record.

3. Every person who shall contribute, by donation or legacy, sums of money, or presents of books, etc., in furtherance of the objects of the Institute, shall be recorded as a benefactor; his name and benefaction shall be announced at a regular meeting of the Institute, and shall be inserted in its journal.

SECTION V.

RULES AND BY-LAWS.

1. The Institute may make, alter, or amend such rules and by-laws, not inconsistent with the provisions of this constitution, as may be deemed appropriate or necessary; these shall not, however, be changed except at a regular meeting, after a month's notice of the proposed change, and by a vote of two thirds of the members present.

SECTION VI.

CHANGE IN CONSTITUTION.

1. This constitution may be changed or modified, at any regular meeting of the Institute, by a vote of three fourths of the members present; provided notice of such change or modification, indorsed by twenty resident or non-resident members, shall have been given at a regular meeting three months in advance; such notice to be communicated by the domestic secretary to all resident and non-resident members.

RULES AND BY-LAWS.

MEETINGS.

1. A QUORUM of the Institute shall consist of ten members. There shall be a regular meeting on the first Wednesday of every month from October to June, inclusive, except January, when the meeting shall be on the second Wednesday of the month, and shall be called the annual meeting, at which time the general reports of the officers of the Institute shall be presented, and the annual address of the president delivered.

Unless otherwise specially ordered at a preceding meeting, the hour of meeting shall be eight o'clock P.M.

2. At the annual meeting a list of deaths of members for the year shall be read, with such obituary notices as may be authorized or approved by the executive committee, and also a list of new members.

3. The executive committee may call or direct to be called special meetings of the Institute, of which notice shall be given as of regular meetings.

4. Each member may introduce two visitors at any meeting, by writing their names on a list to be handed to the president. The president at his option may admit any number of visitors.

5. The executive committee shall assemble at the place of meeting of the Institute half an hour, or more if necessary, before each meeting, regular or special, and one hour before the annual meeting. Upon requisition in writing of *three* members of the committee, specifying the object, the recording secretary shall call a special meeting of the executive committee.

6. At the close of each meeting the secretaries and other officers shall deliver at once to the custodian all books and donations, and all papers not required by them for use in discharge of their duties.

7 All motions, except for adjournments, shall be in writing,

signed by mover and seconder, numbered, and entered by the recording secretary on the minutes in their order.

ORDER OF PROCEEDINGS.

1. The president, or the officer designated by the constitution, shall call the Institute to order at the hour fixed for its meeting, or as soon thereafter as a quorum shall be present, and the following shall be the order of business:

a. Announcement by the president of the names of visitors present.

b. Reading of the minutes of the last preceding meeting by the recording secretary; question on their adoption.

c. Foreign correspondence, etc., by the foreign secretary.

d. Domestic correspondence, etc., by the domestic secretary.

e. Report of executive committee on applications and nominations for membership, and other matters in charge of the committee.

f. Balloting for members.

g. Report of custodian.

h. Report of treasurer.

i. Reports of special committees.

j. Special business.

k. Unfinished business.

l. Action on any proposition to change the constitution or by-laws.

m. Reading of papers, discussions, and general business.

2. The presiding officer, in his discretion, may limit debate to fifteen minutes for each person, and may adjourn the meeting at the end of two hours after the opening of the session—the matters then being before the Institute to come up at the next meeting as unfinished business.

NOMINATION OF MEMBERS.

1. Nominees for admission as members must be proposed and recommended by not less than three members of the Institute, according to the following

Form of Nomination.

"We hereby propose and recommend" [*here state name in full, the profession or occupation, and usual place of residence of the nominee*] "as a fit and proper person to become a member of the Anthropological Institute of New-

York." [*Here must follow the signatures of the three members making the nomination, and, if it be for a resident member, one of these must have personal knowledge of the nominee, and so state.*] *Signatures and date.*

APPLICATIONS FOR MEMBERSHIP.

1. Inasmuch as from various circumstances persons worthy and desirous of membership may not be able to secure nomination according to the above form, they may apply for membership in the following form, which application, made to any officer or member of the Institute, shall go before the executive committee, and if said committee shall be satisfied that the applicant is a fit and proper person for membership, they shall so report to the Institute, when the applicant shall be balloted for according to the rules.

Form of Application.

"I, [*here state name in full, occupation or profession, and address,*] being desirous of becoming a [resident or non-resident] member of the Anthropological Institute of New-York, hereby submit my name as a candidate for membership. Not knowing personally any members of the Institute, I refer to [*name of referees*] or to my published works, [*naming them.*"]

Signature and date.

Form of Acceptance.

2. "I, the undersigned, having been elected a [*resident or non-resident*] member of the Anthropological Institute of New-York, hereby agree to the constitution and by-laws of the same as they now exist, or may hereafter be revised or amended; and I will endeavor to advance the objects of said Institute always, provided that, whenever I may be desirous of terminating my membership, I shall be free to do so, by signifying my wish in writing to the appropriate secretary, after paying any arrears that may be due from me at that period." *Signature and date.*

PROCEEDINGS PRELIMINARY

TO THE

ORGANIZATION

OF THE

ANTHROPOLOGICAL INSTITUTE OF NEW-YORK.

THE ANTHROPOLOGICAL INSTITUTE OF NEW-YORK is THE AMERICAN ETHNOLOGICAL SOCIETY reorganized. The steps leading to this change, and the reasons therefor, sufficiently appear in the following summary of the Minutes of the late AMERICAN ETHNOLOGICAL SOCIETY:

May 11, 1869.—At a regular meeting of the American Ethnological Society, held this date, the following resolution was adopted:

Resolved, That a Special Committee of five be appointed to report, at the next regular meeting, on the best mode of reorganizing the Society, and giving it an efficient character, consonant with scientific development generally throughout the world; and that the election of officers be postponed until action shall be had on such Report, and that in the interval the existing officers of the society be continued in their respective positions.

Messrs. E. G. Squier, A. J. Cotheal, J. A. Spencer, J. C. Nott, and C. C. Jones, Jr., were appointed a committee under the resolution.

November 17, 1869.—Mr. SQUIER, from the Special Committee on Reorganization, submitted the following Report and Resolutions:

REPORT.

At a late meeting of THE AMERICAN ETHNOLOGICAL SOCIETY, in view of its decline and inefficiency, your Committee was appointed to consider whether it might be reorganized so as to give it the rank and usefulness legitimately to be expected from its name, or whether it should be dissolved altogether, so as to give place to an organization more vigorous and better in harmony with the advanced stage of Anthropological, Ethnological, and Archæological Science.

In favor of its continuance is the fact of a certain *prestige* attaching to it as one of the oldest societies of the kind in the world; one which has numbered among its promoters and members some of the ablest and most earnest students of our own and other countries, and which, in the earlier years of its existence, made valuable contributions to ethnography generally, and to American ethnography in particular. The Society was organized mainly under the auspices of the late Hon. ALBERT GALLATIN, a man of great research, vigor, and keenness of intellect, who brought around him such men as Dr. Edward Robinson, John L. Stephens, John R. Bartlett, Theodore Dwight, Dr. Francis, George Folsom, Professor W. W. Turner, Dr. Hawks, and others, all and each of distinction in their respective departments of inquiry. Mr. Gallatin's house was the true seat of the society, and Mr. Gallatin himself its controlling spirit. His name gave it character, and from his purse mainly was defrayed the cost of the two volumes of Transactions which constitute about the only claim the Society possesses on the respect of the scientific world, and about its only title to be considered a learned society.

Except by an abortive attempt to publish a third volume of Transactions, in 1853, the publication of some disjointed numbers of a Bulletin, and a few trifles in the way of loose papers, the Society has given few signs of vitality. It has had numerous pleasant *reunions*, not without a certain interest and profit to the participants, but it has done no solid, substantial work. Elsewhere in the world, the studies to which the Society

is supposed to be dedicated have been prosecuted with wonderful vigor and effect. Anthropology, which is only a more comprehensive name for the Science of Man than Ethnology, has really risen to the rank of a recognized science. It is no longer hazy speculation; its area is no longer the waste field into which pretenders, half-schooled philosophers, vague theorists, and Jonathan Oldbucks of all sorts, may shove their inconsequent rubbish, but one in which the most powerful minds, the acutest intelligences, and the most patient investigators may and do work with honor and effect. Statesmen, whether senators or kings, can no longer overlook the profound lessons inculcated by anthropology. The political reorganization of Europe is going on in consonance with its discoveries and results. Religion, under its influences, is separating itself from a ritualistic dogmatism that has nothing to do with morals or the relationship that exists between man and God, and has become all the loftier and purer from the dissociation.

To these grand results, we may ask, "What has THE AMERICAN ETHNOLOGICAL SOCIETY contributed?" Absolutely, for twenty years, nothing! True, ten of these years have been unfavorable to scientific pursuits in this country. Students having common sympathies and aims have been separated by political and social barriers, and investigators weaned or diverted from their pursuits by imperative requirements in other fields. Estranged co-laborers, however, are returning with that catholic spirit which study for Truth inspires and encourages, to their old associations and researches; and the altered condition of our common country encourages and, indeed, makes necessary a wider and deeper investigation of the character and true relations of the varieties and races of mankind than ever existed before. But this investigation must be made *ab initio*, or rather in a purely abstract scientific sense. It can not be done by men who, for any reason or motive, bring into the study the element of faith, or adhesion to dogmas or creeds of any kind whatever. These subtle elements of depression of scientific inquiry have been, to a certain degree, the ruin of this Society. Your reporter can remember when the question of human unity could not

be discussed without offense to some of the members of the Society, and when its casual introduction was made a ground of impassioned protest. This allusion is made only to enforce the vital truth that, in scientific inquiry, the item of faith must be entirely eliminated. Not having been so, discussion in this society has been relatively tame and fruitless.

Probably no one will dissent from the proposition that no scientific society can be useful or permanent which does not publish its proceedings, summarily or otherwise, or which fails to print its memoirs with a certain degree of regularity. No man worthy of occupying the attention of any considerable number of intelligent students will prepare an elaborate memoir, full, as any reputable paper should be, of facts of present interest or for future use, for the empty honor of a vote of thanks, and a modest request for a copy for archives that do not exist.

Such publications involve considerable outlays of money; how to obtain which is a serious question. Now, if the fees and dues of membership of this society had been collected with any thing like the regularity of gas-bills, and if the money that has been spent, by various members, in those social entertainments, which have been very pleasant but somewhat expensive pendants to our meetings, had been devoted to the more important objects of the Society, we should not only have maintained the credit Mr. Gallatin and its early members gave to it and advanced science, but have encouraged and brought new inquirers into our special field of research, besides exposing and suppressing imposture.

Of course a Society like this, as it has been or may be constituted, would be glad to "have a local habitation" as well as a name; a library and a museum, a hall to meet in, and a place for students to study in. The possession of such a place has been a cherished ambition of some of us, and we have sought to impress men of wealth, in this city, to endow the Society. But much reflection, and some experience, have shown that beyond having a hall to meet in, and a place wherein to deposit our books and papers safely, it is as well we should be without endowment. An endowed institution, in nine cases out of ten, becomes a roost for owls and a refuge for rats and

bats. Look at that ancient society in another State, established, or rather buried, in a pleasant country town, with its fine buildings and splendid endowment! What has it done for antiquarian science during the last half-century?

We do not need an endowment beyond a publishing fund, reinforced by the regular payment of moderate dues. The Historical Society, perhaps the Astor Library, or some other of the popular institutions springing up around us, will be willing, if not eager, to give place to all publications sent to us as a Society, to all relics presented to us, and give us one and all free access to consult or study them. In this way trouble and expense may be spared, and with a relatively light cost the Society may enter on a vigorous existence.

To return, however, to the main question before us. In the last published list of resident members of this Society we find forty-seven names. Of these, twenty-five are either dead or removed from the city. Our archives have mainly disappeared, and we do not know how many corresponding or honorary members we really possess. Altogether, as a Society, we are without means, with little except reflected credit, without connected records, behind all similar societies in the world, practically disorganized and effete. We have not kept pace with ethnological research elsewhere, and have no useful existence at home. We are no longer an authority; for what with "holy stones" and such rubbish, we have been led, for want of firmness and independence, through an amiable but inexcusable weakness, into apparent sanction of bold impostures, and into childish discussions, hateful to manly intelligence and in derogation of our earlier reputation.

Your committee have come to the conclusion that it is impossible, even if it were desirable, to reorganize or perpetuate the Ethnological Society. As said before, it has fallen behind the age, and it is better to start now with an entirely new organization, with fixed financial rules, with strictly scientific objects, to meet regularly, and to print in like manner. Your committee, therefore, with a general concurrence in the above report, for which the chairman, after all, is responsible, recommend the adoption of the following resolutions:

I. *Resolved*, That a Committee of Nine be appointed to call a meeting of the resident members of this society, and such other gentlemen as they may believe interested in anthropological studies, at such time and place as they may decide, for the purpose of organizing a society to be called THE ANTHROPOLOGICAL SOCIETY OF NEW-YORK, and that such committee prepare a constitution, etc., for such Institute, to be submitted for the consideration and action of the meeting.

II. *Resolved*, That upon the formation of the society contemplated by the foregoing resolution, the American Ethnological Society be *de facto* dissolved, and that all moneys in the hands of the treasurer of the society be transferred to the credit of the new organization, and that all books, relics, and properties belonging to the American Ethnological Society, be diligently collected and deposited in some proper place, to be hereafter designated, as the property of the new society.

The resolutions were unanimously adopted, and the following committee appointed, in conformity with the first resolution:

Hon. E. George Squier, Charles C. Jones, Jr., William H. Thomson, M.D., George Gibbs, Charles P. Daly, D. M. Treadwell, Charles Rau, Alexander J. Cotheal, Henry T. Drowne.

MARCH 9th, 1871—Special Meeting.—First business in order: Report of Committee to prepare Constitution, etc., for an Anthropological Society, to succeed THE AMERICAN ETHNOLOGICAL SOCIETY.

The Chairman of the Committee stated that it had been proposed, in the resolution under which the committee was appointed, that the new organization should take the name of "The Anthropological Society of New-York;" but the committee subsequently resolved on the designation of "The American Anthropological Society." After this resolution was taken, an Association of gentlemen in Boston appropriated the name of "The American Anthropological Society," as also, it was reported, another Association in New-York.

Under these circumstances, the Committee thought best that the reorganized society should profit from the example of the newly-consolidated Ethnological and Anthropological Societies of London, and style itself "THE ANTHROPOLOGICAL INSTITUTE OF NEW-YORK."

There were, in the opinion of the committee, several advan-

tages in this, apart from the consideration of modesty, since the name itself would indicate to collectors and correspondents the exact seat of the Institute.

By the consolidation of the Ethnological Society of London with the Anthropological Society of the same capital, the designation "Ethnological" had ceased to apply to any society of importance in Europe, and the term "Anthropological" had been accepted instead, for reasons well explained by Dr. Broca, one of which is, that the new name is more appropriate and comprehensive; and another, that the study of man requires the coöperation of naturalists as well as archæologists, anatomists as well as antiquaries.

Mr. SQUIER then submitted the "Constitution and By-Laws of 'THE ANTHROPOLOGICAL INSTITUTE OF NEW-YORK,' as agreed on by the Committee," (*ante*, p. 6, *et seq.*,) which were unanimously adopted.

The dissolution of THE AMERICAN ETHNOLOGICAL SOCIETY was then formally announced, and the gentlemen present proceeded to the temporary organization of "THE ANTHROPOLOGICAL INSTITUTE OF NEW-YORK," by the election of ALEXANDER J. COTHEAL as Chairman, and HENRY R. STILES, as Secretary.

A committee of three was appointed to prepare nominations for officers of the Institute, to hold their places as provided in the Constitution.

The committee reported the following nominations:

Hon. E. GEORGE SQUIER, *President.*
J. C. NOTT, M.D., } *Vice-Presidents.*
GEORGE GIBBS, Esq., }
E. H. DAVIS, M.D., }
J. K. MERRITT, M.D., }
C. C. JONES, Jr., Esq., } *Executive Committee.*
W. H. THOMSON, M.D., }
J. G. SHEA, Esq., }
ALEXANDER J. COTHEAL, Esq., *Treasurer.*
Prof. CHARLES RAU, *Foreign Cor. Sec.*
HENRY T. DROWNE, Esq., *Domestic Cor. Sec.*
H. R. STILES, Esq., *Recording Sec.*
GEORGE H. MOORE, LL.D., *Custodian.*

FIRST REGULAR MEETING

OF THE

ANTHROPOLOGICAL INSTITUTE OF NEW-YORK.

The Incorporators named in the Charter of The Anthropological Institute of New-York met at No. 52 Wall street, April 26th, 1871—a majority of the incorporators present. The Certificate of Incorporation having been read, was unanimously accepted.

The constitution and by-laws of the Institute, approved at the preliminary meeting for its organization, held March 9th, 1871, (*ante* p. 1, *et seq.*,) were unanimously adopted.

The gentlemen nominated for officers of the Institute at the meeting aforesaid were unanimously elected.

Mr. A. J. Cotheal, on the ground of approaching indefinite absence in Europe, resigned the position of Treasurer, and Mr. H. T. Drowne was elected Treasurer, *pro tem.*

Mr. H. R. Stiles, on the ground of residence outside of the city, resigned the position of Recording Secretary, and Mr. J. G. Shea was elected Recording Secretary, *pro tem.*

Mr. C. C. Jones, in the absence of the Custodian, was elected Custodian, *pro tem.*

Ordered, That on publication of the Act of Incorporation, Constitution, and By-Laws of The Anthropological Institute of New-York, with the proceedings leading to its organization, a copy of the same be sent by the proper secretaries of the Institute to each member (resident, corresponding, and honorary) of the late "American Ethnological Society," whose address is known, with the request that he will notify such secretary whether or not he accedes to the same, and that in case no response shall be received from any such member before the first day of October next, every such person shall be deemed to decline to be a member of the Institute.

Ordered, That the President be authorized to procure and have executed a suitable seal for the Institute, and a certificate of membership for the same; and that the Treasurer be authorized to procure the record books requisite for the purposes of the Institute.

Adjourned to the 10th of May, *prox.*

THE PROGRESS OF ANTHROPOLOGY

IN EUROPE AND AMERICA.

AN ADDRESS BEFORE THE ANTHROPOLOGICAL SOCIETY OF PARIS,

BY DR. M. PAUL BROCA,

SECRETARY-GENERAL OF THE ANTHROPOLOGICAL SOCIETY, AND PROFESSOR OF MEDICINE OF THE FACULTY OF PARIS.

TRANSLATED BY W. LEA ROBERTS, Esq.

THE traveler, as he climbs a mountain-side, delights to stop at intervals and survey the road by which he has ascended. Forgetting the present, he turns his thoughts to the obstacles he has overcome, and draws from them new courage to face the difficulties which lie around his future path. Like such a traveler, gentlemen, you wish to-day to survey the past. After ten years of incessant labor, which have not been without benefit to science, you desire that the first decennial anniversary of the foundation of your society should be the occasion for a retrospective review of the circumstances which, during this interval, have favored so many discoveries, and led to so much progress in anthropological science.

There is no occasion, as in ordinary reviews, to present an analysis, more or less brief, of your achievements. And besides, how would it be possible to condense in an essay like the present, the contributions and inquiries which already fill twelve volumes, and of which the enumeration alone would occupy several hours?

What you require is a general review, in which the work

of each particular individual is lost sight of; an impartial estimate of the influence which our society has exercised over the progress of our science; a comparison between anthropology such as it was before you were, and anthropology such as it is to-day — a delicate and difficult task, and one which would have been achieved with far more tact, wisdom, and authority by the eminent professor who this year presides over our meetings. This duty would have been his of right, and you invited him first to undertake it. But Monsieur Lartet is not like other men. In research and in discovery he takes the lead. But when it comes to making himself prominent, he shrinks behind others. Not having been able to overcome the modesty of your president, you have chosen your secretary-general in his place, and it is my duty to comply with your wishes, which have to me the force of commands; but I can not conceal from myself that, in obeying your behests, I expose myself to failure in undertaking a task beyond my strength. Already accustomed to rely on your indulgence, it is to that I appeal to-day, and you will doubtless grant it to me when you call to mind the old lines,

> "Da veniam scriptis quorum non gloria nobis
> Causa, sed aspera lex officiumque fuit."

That which characterizes the decennial period of which I am about to endeavor to give you a historical sketch is the diffusion of anthropological studies, the rapid and, up to this time, unprecedented increase of the number of *savants* who have devoted themselves to this pursuit, and of persons who have become interested in it. Within a few years, there has been created a public, numerous and respectable, which understands the importance of our science, which applauds its progress, and has faith in its future.

Before that period, they who devoted themselves to the solution of some of the problems of our science were forced to be content with but few readers, to see their ideas received with silence or indifference, and to hear from the lips of the wise such words of discouragement as, "What a pity that so much work and so much industry were not applied to more worthy objects!" To-day, they find everywhere schools open

to their discussions; reviews and journals welcome their publications; they meet with enlightened hearers and diligent readers, and those same wise men now congratulate them on the usefulness of their investigations.

What, then, are the causes of this agreeable and welcome change? They are numerous, no doubt, and we must acknowledge, first of all, that a science of which the history reckons such names as those of Buffon, Camper, Blumenbach, Prichard, Milne-Edwards, Morton, Retzius, Rodolphe Wagner—to speak of the dead only—must, sooner or later, recommend itself to the minds of men, and triumph over public indifference. We must remember also that the progress of our science was subordinate to the progress of philology, of geology, of paleontology, of prehistoric archæology, which only attained the rank of positive sciences in the first half of the nineteenth century. As it was impossible that anthropology should reach its present height before these auxiliary sciences had attained their maturity, so it was necessary that it should, in due time, follow them in their development. But it might for a long time have waited for its hour if it had not, about ten years ago, received a fresh and vigorous stimulus.

This stimulus, gentlemen, is due to you. It is you who, in uniting your forces, in combining your various talents, in bringing to bear to the same end the numerous sciences to which that of the science of man is tributary, have made the Anthropological Society of Paris a centre of attraction whose influence is rapidly spreading. Before you, but under less fortunate auspices, other societies had, under various names, attempted the difficult task which you have accomplished.

There was first "The Society of the Observers of Man," founded in Paris in 1800, by a union of naturalists and of medical men. The title itself of this society, and the prospectus drawn up by Jauffret, its perpetual secretary, show clearly that the intention of its founders was chiefly to promote the study of the natural history of man. It was proposed, above all, to direct the researches of travelers to definite aims and objects, and the results of their inquiries were relied on to give interest to the sittings of the society. But no one had then

foreseen the long continental and general wars which were for a long time to interrupt commerce and foreign travel. In the absence of these anthropological contributions, which it was never to receive, the society turned its attention to questions of ethnology, historical and pyschological. Natural history was neglected for philosophy, politics, and philanthropy. The illustrious Coray, whom the modern Greeks justly look upon as the father of their nation, had just arrived in Paris, where his mission was to make known the state of Greece, and to interest the men of letters and the philosophers of France in the fate of his oppressed country. Finding some difficulty in making public his ideas through the medium of the press, then closely gagged, he addressed the "Society of the Observers of Man," and to it he presented his celebrated memoir on *The Present State of Civilization in Greece.* This memoir made little impression on the public mind, then engrossed by the military events of the period; but it had a strong influence on the society, which soon became the resort of the Philhellenes, and lost accordingly its scientific character. After about three years of a languishing existence, it was absorbed by the "*Philanthropical Society*," leaving in the history of science but faint traces of its having ever existed. Later, after the fall of the empire, the memoir of Coray, several times reprinted, and translated into most of the languages of Europe, became a point of departure for the Philhellenic movement, and is quoted to this day as the key-note of the emancipation of Greece. As to the "Society of the Observers of Man," the part which it took in this movement, to which it sacrificed its existence as a scientific body, has been already forgotten. The naturalists who had founded it were too eager to coalesce with the schools of pure philosophy and belles-lettres. Anthropology had not yet a sufficiently firm foundation; it was not yet strong enough to gather to itself and use for its own benefit the extrinsic powers it had called to its aid. Instead of implanting them in its own soil, it was drawn after them into the shifting sands of politics.

This abortive experiment had been long forgotten when some English philanthropists founded in London, in 1838, the "Society for the Protection of Aborigines," under the Presi-

dency of Sir Thomas Fowell Buxton. Although this association reckoned among its members some eminent *savants*, its aims were rather political and social than scientific. It was at this time that the question of slavery, already solved by England, began to occupy the attention of the French government. In the session of 1839, the Chamber of Deputies having before it a resolution of Monsieur de Tracy, pointing to the emancipation of the slaves in our colonies, had appointed a commission to report upon this important subject; and the society in London, hoping that the pressure of public opinion might have a favorable influence on the decision of the chamber, resolved to establish in France a society for the emancipation of the negroes. One of its leading members, Mr. Hodgkin, came to Paris, and put himself in communication with several distinguished persons, and more particularly with the eminent naturalist and anthropologist Milne-Edwards. But an association of this kind was not at that time possible in France, where, both in manners and in legislation, the selfish principle of "every one for himself, and the devil take the hindmost," still prevailed. Nevertheless, the earnest efforts of Mr. Hodgkin were not without fruit; instead of a political association, Milne-Edwards and his friends resolved to found a scientific society, and thus sprang into existence the celebrated "*Ethnological Society of Paris*," the establishment of which was authorized by the minister of public instruction (with the permission of the minister of the interior) on the 20th August, 1839.

Since the failure of the "Observers of Man," anthropology had made marked progress, and if not yet established as a positive science, it possessed a large mass of materials which only lacked methodical arrangement. Twenty years of prosperous peace had restored activity to commerce; numerous voyages of discovery and several expeditions round the world had enlarged the field of anthropological observations. Many craniological museums began already to be formed. The publication of the *Decades* of Blumenbach was finished; the works of Virey, of Prichard, of Bory de St. Vincent, of Desmoulin, of Gerdy, of D'Aubigny, of Broc, and of Lesson, had thrown light on the description and the classification of the races of mankind, and,

more recently, (1839,) the celebrated Morton had brought out his greatwork, *Crania Americana.* At last, philology, which for a long time had been a stumbling-block to the learned, became a positive science; the correlations and affiliations which it established were now no longer hypotheses; and the study of languages, hitherto so deceptive, was about to become a trustworthy guide in the researches as to the origin of our race. It was under such favorable conditions that the Ethnological Society of Paris began its labors, and you know, gentlemen, how equal it has been to its task. Its two volumes of *Memoirs* and its volume of *Reports* will always be reckoned among the most important of anthropological collections. But, although its founders had quickly enlisted many supporters, the number of its active members remained for a long time very limited. Its meetings excited some interest, based mainly on curiosity; but they lacked spirit, while beyond its own walls its discussions were almost unheeded. When, however, the first volume of its *Memoirs* appeared, some English *savants* appreciated the usefulness of its work, and resolved to imitate it. Through their means, in May, 1844, a similar society was formed in London, and took, like it, the name of the *Ethnological Society*, and a short time subsequently a third society, founded in New-York, adopted the same title.

The Ethnological Society of Paris had thus extended its influence beyond the seas, and could legitimately congratulate itself upon its success. But it can not be denied that it was wanting in compactness and cohesion. At the time it was founded, the Anthropological Gallery of the Museum did not exist; there was no collection in Paris where the study of the comparative osteology of the human races could be pursued, and therefore it could not raise its edifice on the solid basis of anatomy, which is the only sure foundation of natural history. In the absence of anatomy, which was scarcely recognized except in the plan of the society, it devoted itself, and with the greatest success, to the special study of certain races, their intellectual and moral characters, their languages, their tendencies, and their place in civilization; questions of the highest interest, which collectively, under the name of ethnology, form one of the most important branches of anthropology, but which

easily divert men's minds from the hard road of science, leading them into the regions of speculation, all the more uncertain when they are not guided by the light of observation. Ethnology studies man only as a member, or a constituent element, of races and peoples. Ethnography studies him, besides, as one of the habitants of the earth, as one of its productions, as representing a zoölogical group, subject to the general laws which govern the whole of nature. He who should confine himself to this last would neglect the most useful and practical side of the science of man; but whoever should be bound exclusively to the first, would ignore the principle which is the only sure basis of science, and which consists in proceeding from the simple to the compound, from the known to the unknown, from matter and organism to functional phenomena. The founders of the society were not ignorant of all this. Milne-Edwards, who drew up its prospectus, and Mr. Vivien de St. Martin, who later on stated with the most admirable precision the fundamental principles of anthropology, accorded to both one and the other the chief place in the study of the physical characteristics of man. But these excellent precepts could not be applied, because the collections of skulls and skeletons which we possess to-day did not then exist.

Deprived of the assistance and guidance of anatomy and craniology, the Ethnological Society was like a small vessel which without enough ballast leans over to the side where stands the crew, and which, navigable during calm weather, is in most imminent danger in a storm. Such a storm soon burst. The meetings of the society, hitherto peaceful, were agitated by the question of slavery. The first thing was to determine the distinctive characteristics of the white and black races; but it was in vain that the naturalists and anatomists, too few in number, tried to restrain the discussion within the limits of natural history. They could not hinder other speakers, friends or foes of emancipation, from looking at it as a question of social politics, and dragging almost the entire society after them into such a passionate and fiery arena. This was in 1847; the debate became more lively at each meeting; the outside world began to be interested; the splendid speeches of Mr. Schoelcher, the celebrated abolitionist, found an echo in

the press, and the public willingly believed that ethnology, of which it then heard for the first time, was not a science, but something between politics and philanthropy; an unfortunate impression, not easily rooted up, and which, I may remark in passing, excited in the end the suspicions of the police against the founders of the Ethnological Society. This absorbing controversy lasted nearly a year, and might have continued till now, if the provisional government of the revolution of February had not ended it by abolishing slavery itself. But the Ethnological Society had been so completely absorbed by this question that, deprived of it, its chief motive to action seemed no longer to exist. It was not, indeed, dissolved, but it had thenceforward only a nominal existence; it ceased to hold meetings, and sank away as though there were nothing more to live for, leaving a blank in science which was only filled up eleven years later.

There remained, however, in London and New-York, two Ethnological Societies, which had had neither an equally brilliant career nor similar misfortunes. They passed uneventful lives, collected interesting documents regarding different people of the two worlds, and, at long intervals, published some useful works. But in dividing ethnology from natural history, they deprived themselves of the assistance of men accustomed to rigorous methods of observation; they exerted only a feeble influence over the march of science, and it was not through them that the chief work of anthropology was accomplished.

The progress of anthropology, although checked by the failure of the Ethnological Society of Paris, had not thereby been stopped. In France, the pursuit of this noble branch of natural history, begun by M. Serres, was carried forward with unqualified success by M. de Quatrefages. The Anthropological Gallery of the Museum was established, and increased rapidly. Numerous essays on craniology were read before the Academy of Sciences, and at the same time Boucher de Perthes collected, with invincible zeal, new proofs of the antiquity of man. At Stockholm, the great anatomist Retzius completed his celebrated craniological works, then little known in France, but already famous in Germany. The

archæologists of Denmark, after having established prehistoric archæology on a new basis, led the way, by the study of kitchen-middins (kjökkenmöddings) and turf-pits, to human paleontology. In Switzerland, by the discovery and examination of lacustrine habitations, the succession of the epochs of civilization and industry were accurately defined. In England, our distinguished colleagues, Barnard Davis and Thurman, began the publication of their splendid work, *Crania Britannica*, while a diligent and unceasing opening of barrows and tumuli supplied a large collection of Roman and Anglo-Saxon skulls.

Lastly, in America, George Samuel Morton continued to increase his craniological collection, which was for a long time the finest in the world. He perfected his method of measurement of skulls, completed his description of American types, and vigorously upheld the doctrine of polygenesis, (diverse origins,) which several of the most distinguished scientific men of his country had also embraced. Morton and his disciples had understood better than their predecessors the necessity of combining with their study of man that of geology, paleontology, archæology, that of zoölogy in general, and of zoölogical and medical geography. To carry out this plan, and to extend anthropology to its widest limits, all that was wanting to the American school was the calm philosophy which places scientific investigations above and beyond political and religious animosities. In 1851, the year in which the illustrious Morton died, the United States were agitated by the abolition question, which ten years later resulted in the most terrible of civil wars. In the vehement discussion to which the question of slavery gave rise, interests and feelings were ranged against each other. The rights of the weak were opposed to the power of the strong; theology, as usual, furnished weapons to both sides; and science at length was dragged into the strife.

By one of those confusions of ideas which men of science and literature share equally with an uninformed public, it was imagined that slavery was bound up with the polygenistic theory, while emancipation was inseparable from the monogenistic. Singular forgetfulness of history, which shows slavery sanctioned by monogenistic laws, accepted by monogenistic

Christians, allowed by monogenistic Mohammedans, introduced into America on the demand of the bishop, Las Casas, by a monogenistic Pope; afterward opposed in the seventeenth century by philosophers, who at least did not pride themselves on their orthodoxy; sneered at by Voltaire, who professed polygenism, and, finally, abolished for the first time by the National Convention in virtue of a principle with which dogma had nothing to do! But what mattered the past? We only know that by the cry of brotherhood and the common origin of the races of Adam, the religious societies of England had, in the nineteenth century, carried the question of emancipation; that under such auspices the question had been agitated in the United States; and that nothing more was wanted to induce the slavery party to take their stand on the theory of the polygenists. There was a moment in which political discussion seemed to limit itself to this scientific basis, when it might be supposed that the fate of the negroes depended on the opinion of legislators as to the effects of an African sun on human integuments. The disciples of Morton, attacked fiercely by some, unduly praised by others, could not remain quiet. One of them, the learned and lamented Gliddon, gave himself up, I am sorry to say, on more than one occasion, to controversies of mere local interest; but while admitting that the publications of the American school owed their popularity to the events of the day, we can not refrain from acknowledging the high scientific value of the numerous monographs which appeared in 1854 and 1857, in the two great anthropological collections published by Nott and Gliddon. Thanks to the coöperation of several *savants*, who contributed essays relating to general natural history, to craniology, to language, to geology, and to paleontology, *Types of Mankind*, and *Indigenous Races of the Earth*, were the first two works in which the vast scope of anthropology, illuminated by modern science, had been presented in one view. So excellent a beginning was a good augury of a prosperous career for the American school, and the sceptre of Anthropology might have, perhaps, passed into its hands, if the political events to which had been due a portion of its success had not very shortly after clogged its career. The tempest which had long been gathering over the

great republic burst at length with unforeseen violence. A tremendous war absorbed for many years the resources of the country. Science was lost sight of amid the clash of arms, and when the victory of the North had solved the question of slavery, anthropology, negleeted by the public, suffered a period of eclipse similar to what it had undergone in France after the revolution of February.

We can not allow ourselves to doubt, gentlemen, that this is but a passing obscuration, and that the American school will soon reappear with renewed brilliancy. Let not its example be lost on ourselves. We may take warning from it, as also from the Society of the Observers of Man, and the Ethnological Society of Paris, that science can never, without danger, depart from its proper sphere. We find fault, and justly, with the *savants* who, under the convenient pretense of concentrating their efforts on one pursuit, flatter themselves that they can remain indifferent to the great questions which agitate society. The very fact of the superiority of their accomplishments, so far from giving such a right, entails on those gentlemen the duty of taking part in political life, and of exercising a beneficial influence on those who surround them. Let them, then, interest themselves in the affairs of their country. They can not do better than plunge eagerly, according to their several temperaments, into the philosophical, religious, social, or humanitarian problems which surround them. And when, returning to their laboratory or their study, they apply themselves to scientific inquiries, they ought to lay aside their feelings and their ambitions, and, closing their ears to external influences, listen only to the calm voice of truth. For science ought to hold allegiance to itself alone, and never bend the knee to party. It is a divine power enthroned above humanity, to direct and not to follow it, and of it alone it may be said, that it is born to command and not to obey.

While political circumstances allowed in America only a fleeting interest in anthropological publications, the *savants* in Europe were calmly pushing their researches, and with steps slow but sure advancing to the discovery of archæological and paleontological facts which opened new vistas for anthropology. But their isolated and not always harmonious labors

received little attention. A certain discredit even was attached to such studies, which, having no tie in common, and being withdrawn from general discussion, appeared but little deserving of confidence. When facts ran counter to popularly conceived opinions, they were greeted with contempt, or else with a forbearance near akin to entire indifference. It was then that the founders of the Anthropological Society of Paris determined to form a tribunal before which opposing views might obtain a hearing; to create a scientific centre where labors hitherto scattered might meet as on a common ground; and where anthropology, settled on a firmer base, might claim the aid of all the sciences that could throw light on the present conditions of the races of men, their history and their relations, on the development of industry and civilization; and lastly, on the origin of man, the time of his first appearance, and his place in the economy of nature.

After more than six months occupied in collecting subscriptions, and in obtaining, not without difficulty, authority to hold its meetings, (under the control of the police,) the new society met for the first time on the 19th of May, 1859, and began work on the 7th of July following. I do not know whether I deceive myself, but I would fain believe that this date, of which we celebrate this day the decennial anniversary, will be a mark in the history of anthropology, and will be considered by our successors as the opening of an important era. It is from that date that anthropology has engaged the attention of the learned world; that it has everywhere recruited adherents; that, ceasing to grope in the dark, it has advanced rapidly toward a definite object, now visible to every eye. Nevertheless, the beginning of our society was humble enough. The provisional committee, after many efforts, had been able to enlist but few supporters. Nineteen persons alone had consented to be placed on the list of founders, and others would only lend the use of their names. Every body looked askance at an undertaking of which the usefulness was not apparent, and the success of which was more than doubtful. But from the time the society was at work, when it had shown in its first discussions the possibility of solving problems hitherto despised as

purely speculative, its list of members rapidly increased, its correspondence multiplied, its publications circulated in other countries, and it had presently the gratification of seeing its example followed and its methods adopted in other lands. This continued success had been owing above all to the activity of its members, and to its unvarying scientific charac ter; but it is also referable to circumstances preceding and accompanying its formation. It entered on its task at the moment when prehistoric archæology, reaching back to the stone age, joined hands with paleontology, and when the antiquity of man, being nearly demonstrated, was about to open a wider field to anthropological investigations; at a moment when it became certain that autochthonous European populations existed prior to Asiatic migrations, and when ethnogenic theories necessarily came under discussion; and lastly, at a moment when the first edition of Charles Darwin's book, *On the Origin of Species by Means of Natural Selection*, London, 24th November, 1859, was already in the press; a work in which the bold hypothesis of transformation, appearing under a totally new form, was about to create a revolution in natural history, and wherein the comparative anatomy of the anthropoidal apes, since supplemented by study of the gorilla, excited the hopes of the transformationists of seeing their theories extended to man himself.

The Anthropological Society having taken on itself the task of collecting, arranging, and discussing so many contemporaneous materials, and so many new-born ideas, was able to add to these two new branches of study, prehistoric and paleontological anthropology, and zoölogical anthropology, the interest excited by which was sufficient, at least, to excite strong curiosity. But curiosity, easily aroused, is as easily quenched, and something more solid is necessary to secure an enduring success. It is only by resting on broad and deep foundations that institutions can uphold themselves, and a science which, like that of anthropology, is one of pure observation, and which embraces every kind of speculative inquiry, and is, besides, dependent on numerous other sciences of which the methods differ from its own, must, in order to preserve its unity and individuality amidst the multiplicity of objects it

embraces, be supported by a mass of positive knowledge exclusively its own, at once its offspring and its ally. Now, what is the chief aim of anthropology, if it be not the natural history of man—that is to say, the anatomy and biology of man? It is, above all, on this solid basis that the Anthropological Society is established. Supported on this central pivot, it can, without losing its way, spread itself in every direction, multiply and vary its objects of study, and make use of the most discordant elements. It can even, without going out of its depth, extract, by means of a vigorous synthesis, the ultimate ideas of *general anthropology*, which, sooner or later, will be the crown and glory of our science. It is here that its strength has been felt, and this is the secret of the influence it has exercised over the anthropological movement both at home and abroad.

Within two years after the foundation of our society, the celebrated anatomist Rodolph Wagner, of Gottenburg, one of our foreign associates, conceived the idea of establishing, in Germany, a society, if not similar, at least analogous, to ours. The German anthropologists, scattered in numerous universities, were too far dispersed to be able, like ourselves, to meet and carry on a joint work. It was not by means of a permanent society, but by yearly congresses, that Wagner undertook to concentrate the anthropological efforts of his countrymen. His idea was eagerly embraced by Mr. de Baer, our illustrious colleague at St. Petersburg, by whom German science is so well represented in the empire of the Czars. The first session was held at Gottenburg, in the month of September, 1861. Its proceedings were limited to the arrangements for future meetings, plans for work, and discussion of the methods of skull measurements. It was decided that the second session should be held at Gottenburg, and those following at each of the principal towns of Germany in turn. A collection of skulls, borrowed from the different museums of Europe, would furnish a basis for anatomical discussions.

The congress, on separating, adjourned for two years. Unfortunately, the illness of Wagner, who was to have presided over the session of 1863, made another adjournment of a year necessary, and his death, which occurred in 1864, caused an

indefinite adjournment. The following year, however, an association of the German anthropologists was started under a new form, and it is now four years ago, to a day, while our society was pleasantly celebrating, by a banquet, its sixth anniversary, a telegram, dated from Frankfort-on-the-Main, announced the foundation of *The Germanic Archives of Anthropology.* It is through the columns of this important publication, in which the chief place is given to articles relating to craniology and prehistoric anthropology, that our German friends have generally made known the results of their researches.

I may add, that there is in Germany another periodical devoted to a similar purpose, known as the *Journal of Ethnology*, published in Berlin since the 1st of January, 1869.

But it was most signally in England that the influence of the Anthropological Society of Paris was felt. The Ethnological Society of London was quietly pursuing its labors when the perusal of our publications excited in its midst the desire to add modern anthropology to the old programme of ethnology. But the most influential members of this society, wishing to remain faithful to the traditions of twenty years, opposed the introduction of anatomy and natural history, and, after many squabbles, a schism ending in a disruption was brought about.

On the 24th of February, 1863, the dissenting members founded, under the presidency of Mr. James Hunt, a new society, which took, like ours, the name of the ANTHROPOLOGICAL SOCIETY. Thanks to the unwearied activity of its president, and to the intense interest of the questions it discussed, the Anthropological Society of London won immediately a high place in public favor, and achieved such success that in a few years its members numbered over 800. Not content with publishing, like us, annual reports and original articles, it appointed a committee to translate and edit, in English, the chief anthropological works published on the continent. At the same time, it established a quarterly journal, *The Anthropological Review*, of which the seventh volume is already in press. These various publications have spread throughout England a taste for anthropological studies. Nowhere else

does our science reckon a greater number of disciples, and we are informed that already the anthropologists in Manchester find themselves numerous enough to found a second anthropological society, which is an auxiliary to that of London. We must confess, at the same time, that the excitement of a contest has had something to do with the zeal of our fellow-laborers. The old Ethnological Society could not, without uneasiness, see a rival society growing by its side, whose strength was derived from pursuing eagerly new methods of investigation, without altogether quitting the old, and which, consequently, drew to itself the chief part of the work of ethnology, properly so called. The Ethnological Society, weakened for a moment by this defection, increased its efforts, and soon saw the necessity of enlarging, in its turn, its own sphere.

The preceding year, on the death of its president, the venerable Sir John Crawford, Professor Thomas Huxley was appointed his successor. Nothing could be more significant than the choice of this gentleman, whose fame rests on his works on zoölogy, comparative anatomy, and craniology, and who has attracted the especial attention of anthropologists by his celebrated work, *Evidence as to Man's Place in Nature*, London, 1863. From this time forward the Ethnological Society and the Anthropological Society differed only in name. Each had the same object, the same methods, the same plan, and many members in common. It was therefore to be hoped that such similarity of interests would lead to a fusion of the two societies. Nevertheless, neither would renounce its distinctive title, and the rivalry between the anthropologists and the ethnologists continues down to this hour.* But England is a country large enough, and has within it a sufficient number of learned men, to enable these two societies, whose aims are identical, to flourish side by side, and science can only be a gainer if the spur of rivalry quickens the activity of each.

While France, Germany, and England were contributing thus powerfully to the progress of anthropology, the other

* The two Societies are now united.—E. G. S.

countries of Europe were not idle. Everywhere, from Sweden to Sicily, from the Volga to the Tagus, learned men were at work. The examination of ancient tombs, of caverns, and of the quaternary formations, brought to light numerous human skulls, and sometimes entire skeletons, the date of which could be fixed, and the study of which has thrown a strong light on the ethnogeny of Europe in general, and of each country in particular. Everywhere the importance of these researches has excited the wish to unite and concentrate them, and during the past four years your secretary-general has received from various bodies of *savants* desirous of establishing, in their respective countries, societies similar to ours, requests for information on this point. But a permanent society, devoted to a science so novel, can only flourish where there already exists a recognized scientific centre, and the difficulties which we ourselves encountered in Paris at the outset, can give us some idea of those which have caused the failure of experiments made under far less favorable conditions. In two places only, Moscow and Madrid, have these efforts met with success.

In Moscow, in 1866, there was formed, in the "Society of the Friends of Nature," under the direction of Mr. Demetrius Sontzoff, a special section of anthropology; but this section acts as a distinct society, and publishes its works separately. Large sums of money having been placed at its disposal, thanks to the munificence of several gentlemen, and especially to Mr. Daschkow, the Director of the Moscow Museum, the section of anthropology was able to organize in Moscow, in 1867, a grand exposition, to found an extensive museum, and to institute several prizes, among others a prize of 17,000 francs for the best anthropological essay on any one of the numerous populations of the Russian empire. These essays are to conform, in their substance, to the *General Instructions* published by you, and which have been translated into the Russian language. The section of anthropology has already made important contributions to ancient and modern craniology, and to the ethnology of Russia, and its future is well assured.

At Madrid, a Society of Anthropology was founded in

1865, at the instance of Professor Velasco, with the active assistance of M. Delgado Jugo. But unfortunately these gentlemen had not taken into account the ulcer which was wasting their country. Nevertheless, all at first seemed prosperous. Nearly two hundred members joined, all preparatory work was done and all legal formalities complied with. The queen had graciously given her authorization. The Minister of Progress —such was his title—had been pleased to honor with his presence (the 5th June, 1865) the ceremony of inauguration. It was only when the society wished to set to work that its difficulties began. The first question submitted for discussion was that of the aboriginal races of the peninsula—an inquiry offensive, imprudent, and savoring of heresy—for the very name of aborigines was pregnant with controversy, and Sister Patrocinio was no more inclined to allow the discussion of monogamy than Father Claret to tolerate the smallest doubt on the biblical date of the creation of the world. A certain newspaper —of which the prototype might without difficulty be found in France—vehemently demanded what an Anthropological Society in a Catholic country meant? A deputy of the Cortes questioned the minister of progress as to his culpable connivance at free-thinking. These menaces convinced our brethren in Madrid that though their thoughts might possibly be free, the only liberty they had was that of silence, and that as to freedom, only such as that *Figaro* speaks of was left to them. A few of their members continued to meet from time to time at the museum of Professor Velasco; but there were no more public meetings, and all printing was suppressed. The revolution of September, however, restored them to their rights, and last 21st February they held their second inauguration, and recommenced their labors. We are waiting with impatience their first publications. The numerous excavations which for some years past have been carried on in Spain and Portugal, both in tombs of the stone age and of the quaternary formations, will supply ample matter for their discussions, and the solution of the question as to the aboriginal races of the Iberian peninsula is doubtless near at hand.

The rapidity with which anthropological societies and associations have spread throughout Europe is a certain indica-

tion of the importance of our studies. But there are still many *savants* who have not been able to organize concerted action at home, and these would find themselves in a state of isolation were it not that the establishment of an International Congress of Anthropology and Prehistoric Archæology opened to them a sphere of usefulness. This fertile conception is due to our colleague, M. Gabriel Mortillet. At the meeting of the Society of Natural Sciences held at Spezzia, in September, 1865, under the presidency of Professor Capellini, M. de Mortillet proposed to the antehistoric section the foundation of an "*International Paleontological Congress.*" The proposal was adopted; and it was decided that the first meeting of such Congress should be held in September, 1866, at Neufchatel, under the presidency of Professor Desor. The Congress at Neufchatel, in its turn, fixed the second session at Paris in 1867, appointed M. Lartet as president, and intrusted the task of organizing and regulating future congresses to a Paris commission. This commission, in which a large number of the members of our society took part, thought it advisable to change the title of the association to that of "*International Congress of Anthropology and Prehistoric Archæology.*" You have not forgotten, gentlemen, the important session of August, 1867, coinciding fortunately with the *Exposition Universelle*, and at which a great part of the countries of Europe and America were represented. The third session was held at Norwich, Sir John Lubbock, President; the fourth will be held this year at Copenhagen, when Mr. Worsae will preside; and the prosperity of this useful institution is not henceforward a matter of doubt.

The principal means of diffusing anthropological knowledge have doubtless been the learned societies, the journals, and the congresses which have sprung into existence the past ten years; and to-day, such is the importance of this branch of study, that it is universally cultivated. Numerous documents, by which we benefit largely, are collected day by day, by the Geographical Societies of Paris, of Berlin, and of Geneva; by the Paris Society of Archæology and History; by several learned societies in the departments and in Algeria; and lastly and chiefly by a society to which we are closely allied in more than one

particular, the *Ethnographical Society.* This society, founded ten years ago by the exertions of its active perpetual secretary, M. Leon de Rosny, was first called the "*Oriental and American Ethnographical;*" but it gradually widened its sphere, and for the past two years has assumed the more comprehensive title of "*Society of Ethnography.*" Ethnography, as understood by this society, differs in many respects from that branch of our studies which we call ethnology. Ethnology is the *science of races*, determined by their physical types; ethnography is the *science of nations;* and what distinguishes a nation is not so much the physical type—which may vary considerably—as the collective intellectual and moral tendencies, together with a community of language, of faith, and of manners. Thus ethnography and ethnology each divide humanity into groups widely different; yet, as it often happens that the characteristics of a nation and those of the race may coincide in a remarkable manner, the two sciences thus derive from each other a valuable support. It is therefore desirable, gentlemen, to cement the bonds of good fellowship between our society and the Society of Ethnography. In fact, there is nothing can serve as an excuse for those jealousies which on the other side of the Channel divided the ethnologists and the anthropologists. While the stand-point of our studies is chiefly that of the natural history of man, that of the Ethnographical Society is chiefly his psychology and history. Hence we may sometimes arrive at opposite conclusions, but in this there is nothing to disunite us.

I have tried, gentlemen, to present to you a sketch of the active movement anthropological science has undergone during the past ten years. It counts now its devotees by hosts, instead of being confined, as formerly, to a few isolated pioneers. What discoveries, too, has it not witnessed! Without exaggeration, it may be said, it has made greater progress in this period, than during the whole term of its existence. The antiquity of man demonstrated, reaching back to paleontological epochs; the existence of quaternary man rendered absolutely certain; that of tertiary man made extremely probable; the succession of the epochs of the stone age scientifically determined, furnishing a regular chronology for fossil history; cave remains

of men discovered, described, and measured, unfolding to our eyes so many astonishing industries and arts; the multiplicity of autochthonous races proved by osteology; the ethnogeny of Europe unraveled; ethnology enriched; general anthropology established; craniology perfected, and made precise by the use of geometry, the method of averages supplementing that of individual observations; the comparative anatomy of the order of primates developed, and nearly completed; such are the general results by which this decennial period has been distinguished.

You do not expect from me, gentlemen, an analysis of so many discoveries. M. Dally and I are striving earnestly to lay before you, in our biennial review, the detailed account giving to each its proper place. What I have wished to describe here is not so much the result of individual as of combined work. I have endeavored to show you the part our society has performed, and the influence it has exerted on the spread of anthropological studies. And now let us prepare to resume our labors and our free discussions; let us so persevere in our investigations that the new decade which begins to-day be not less fruitful than its predecessor; and let us hasten the arrival of the day when the poet will not be able to say of man,

"He knows the universe, but not himself."

VON MARTIUS

ON SOME

POINTS OF SOUTH-AMERICAN ETHNOLOGY.

"In Brazil," says Professor Von Martius, "we see a thin and unequally disseminated population of aborigines, who, though corresponding in physical conformation, character, customs, and manner of living, exhibit nevertheless a really wonderful diversity in regard to languages. A language is often confined to a few individuals connected by relationship, forming thus, as it were, a family institute, which isolates those who use it from all neighboring or distant tribes so completely that an understanding becomes impossible. On the boat on which Dr. Spix and myself navigated the inland streams of Brazil, we often found, out of twenty Indian paddlers, only three or four who were able to converse with each other; we had before our eyes the sad spectacle of a total isolation of every individual in relation to all interests beyond the mere satisfaction of the first wants of life. In melancholy silence these Indians seized their paddles, and performed in company their work, or made preparations for their frugal meal. Without speaking, they sat beside each other in sullen apathy, though the incidents of travels extending over hundreds of miles might have drawn them into a close companionship. This difference in language—notwithstanding a perfect similarity in other respects—what a remarkable, almost mysterious phenomenon!" *

Yet Professor Von Martius has not failed to indicate the

* Beiträge zur Ethnographie und Sprachenkunde Amerika's zumal Brasilien's. Leipzig, 1867. Vol. I. p. 46.

causes which gave rise to the plurality of languages and dialects among the native inhabitants of Brazil. He, like others, very naturally ascribes this fact to the great number of small tribes and bands which make up the aboriginal population of that vast country. His personal experience, however, enables him to be more explicit in his explanation than other ethnologists who have made similar statements. Dr. Oscar Peschel, the editor of the *Ausland*, refers in an article published by him in that periodical * to a conversation with Martius, during which he questioned him concerning the origin of the numerous Brazilian tongues. The information he received from the learned traveler was precise and lucid, and doubtless will be of interest to linguists in general. "The Brazilians," he said, "frequently live in small detachments, being kept apart by the chase; sometimes only a few families wander together; often it is one family alone. Within the family the language suffers a constant remodeling. One of the children will fail to catch precisely the radical sound of a word; and the weak parents, instead of accustoming it to pronounce the word correctly, will yield, perhaps, themselves, and adopt the language of the child. We often were accompanied by persons of the same band; yet we noticed in each of them slight differences in accentuation and change of sound. His comrades, however, understood him, and he was understood by them. As a consequence, their languages never can become stationary, but will constantly branch off into new dialects."

Thus it would seem that among savages *children* are to a great extent the originators of idiomatic diversities. Dr. Peschel places particular stress on this circumstance, and alludes to the habit of over-indulgent parents among refined nations, of conforming to the humors of their children by conversing with them in a kind of infantile language, until they are several years old. Afterward, of course, the rules of civilized life compel these children to adopt the proper language; but no such necessity exists among a hunter family in the primeval forests of South-America; here the deviating form of speech remains, and the foundation of a new dialect is laid.

* No. 38, Sept. 18th, 1869.

Anthropology as a science is the offspring of the last decades. In the early part of the present century, when Martius visited South-America, the labors of Boucher de Perthes and a host of other investigators had not yet begun. The coexistence of man in Europe with the large pachydermatous and carnivorous mammals of the diluvium was not known; nor had the caves of the reindeer period in France and other countries, the Swiss lake-dwellings, and the "kjökkenmöddings" in the north of Europe, been examined by able and eminently successful observers; in short, the great result of modern researches, that man has elevated himself slowly and gradually, during long ages, from an exceedingly low state to his present superior position, was not a generally accepted fact among men of science. It is, therefore, both natural and pardonable, that Von Martius should have adhered to views concerning the primitive state of man which were then held by many, but have now become obsolete. He believed in a former purer and happier "natural" condition of mankind in general, and applied his doctrine in particular to the aborigines of Brazil, whom he considered as a degenerated race, which has sunk from a higher degree of culture to its present barbarism. He fails, however, in sustaining his opinion by convincing arguments, as will be sufficiently shown by the following extract: One night he slept in an Indian hut inhabited by several families. When all were asleep, and he was yet awake in his hammock, abandoning himself to his reflections, his attention was suddenly attracted by a curious incident. "In a dark corner," he says, "arose an old woman, naked, covered with dust and ashes, the very picture of hunger and wretchedness. She was a slave of our hosts, taken from another tribe. Cautiously and silently she crept to the fire-place and blew up the fire; she brought out some herbs and human hair, murmured something, grinned toward the children of her masters, and gesticulated in a strange manner. She scratched her head, threw herbs and hair rolled into balls into the fire, etc. For a long while I was doubtful what all this signified, till at ast, springing from my hammock and approaching her, I discovered by her terror and by the imploring signs she made me not to betray her, that she was practising witchcraft to destroy

the children of her enemies and oppressors. The woman appeared to me like a venomous adder that silently draws near in the dark to sting its enemy in the heel. This was not the first instance of sorcery I had met with among the Indians." He then goes on to speak of the "delusions and obscuring influences which must have worked in the mind of these people, before they came to fear and to conjure up dark unknown powers for hurting others;" and concludes that such a complicated superstition could only be the "remnant of an originally pure worship of nature."

Von Martius could not have brought forward a weaker argument. The sole fact that an old woman practises witchcraft in a Brazilian hut is no indication of a degeneracy of the aborigines of Brazil, as sorcery is common among savages, and particularly among many who doubtless never occupied in earlier times a higher position in the scale of human development. No one, to the writer's knowledge, has thus far looked upon the natives of Australia as a *sunken* race; yet they live in constant dread of witchcraft, and never ascribe the death of a person to a natural cause, but to sorcery.†

Whatever Martius says about the Indians of Brazil—and he describes them with careful minuteness—tends to establish their character as savages in the full sense of the term. They were savages at the time of his visit, and doubtless still greater savages centuries ago. The conclusion drawn by Von Martius seems to be singularly erroneous, and just the reverse of what most, if not all, anthropologists of the present time might have deduced from the narrated incident; for man in a primitive state—whatever that may have been—doubtless inclined more to superstition than to a "pure worship of nature."

The time for mixing up sentimentality with science has gone by: we want facts—real, tangible facts. Any theory not built upon such foundations will hardly find favor in our days of keen scrutiny and logical deduction.

CHARLES RAU.

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* Beiträge, etc., vol. i. p. 4.

† Sir John Lubbock, Prehistoric Times, p. 353.

ANTIQUITIES

FROM THE

GUANO OR HUANU ISLANDS OF PERU.

THE "Guano," or rather (following the *Quichua* designation) "*Huanu*" Islands of Peru consist of three groups, "The Chinchas," in latitude 13° 40′ south, longitude 76° 28′ west; "The Guañapes," latitude 8° 30′ south, longitude 78° 58′ west; and "The Lobos," in latitude 6° 25′ 7″ south, and longitude 80° 50′, 80° 45′ west, respectively. The fertilizing material from the Chinchas has, I believe, been wholly removed, and work has been commenced on the Guañapes, where the *huanu* is best. The Lobos, where the *huanu* is poorest, are yet untouched.

All these islands are bare, barren rocks, covered with *huanu*, and occupied only by seals and sea-birds. But they were frequented, in ancient times, by the inhabitants of the adjacent coasts, (from which they all are visible,) as they are now by ships from all parts of the world, to obtain the *huanu* with which they are covered in deposits varying from 50 to 200 feet in thickness.

Of the visits of the ancients, the removal of the *huanu* has given us abundant evidence. Many aboriginal relics, of gold, silver, bronze, earthenware, and wood, have been discovered in the course of excavating; also, ruins of rude buildings and remains of the dead.

The circumstances and conditions attending these discoveries —made almost as a matter of course by *coolies* and other laborers—have not always been accurately represented, and must generally be accepted with certain allowances. The

habit or faculty of accurate observation is rare, and genuine students are slow to accept accounts which they have not the means of verifying, even when convinced of the good faith of their uncritical informants.

The latest story we possess is contained in a recent number of the London *Athenæum*, as follows :

"A statement comes to us from Peru, from an English engineer, that remarkable discoveries have been made in the lower excavations in the guano of the Guañape Islands. The guano appears to have preservative properties. Besides gold ornaments and other objects, a quantity of cloth was found, said to have paintings of animals and symbols, of which the colors were well preserved. Most of these rolls of cloth were chopped up. We doubt about the paintings and the symbols, because we suspect the stuff was *tapa*, or stamped cloth, as in Polynesia, with which traces of intercourse have been found in Guañape. What is most remarkable is a stratum of woolen rags, five feet thick, and reaching over a mile in extent."

At a meeting of the late Ethnological Society of London, held in November, 1870, a carved wooden implement was exhibited and described by Mr. Josiah Harris as having been found "beneath 27 feet of guano, in the Island of South-Guañape."

Additional to this, a recent number of *Nature* contains the following paragraph :

"Besides the objects brought from the Guano Islands of Guañape, on the coast of Peru, by Mr. Josiah Harris, and exhibited at the Ethnological Society last year, we have now the report of a large find. The most interesting objects are rude representations of the human figure, cut in very hard wood. On the north island, beneath forty feet of guano, a cavity was come upon, which, on the removal of the guano, was found to be a cave, leading downward further forty feet. This was a kind of Pompeii, but blocked with bird-dung instead of volcanic ashes. It had been evidently frequented by man, and contained many hand-wrought works, and also well-preserved sea-fowl and other birds, lizards' eggs, but all petrified, as it were, in the guano. In many cases, the color of the eggs is preserved. The cracks and fissures in the walls of the cave were found filled with solidified ammoniacal salt. Two pieces of earthenware vases were found, bearing figures, also two gold earrings, and a bundle of medicinal herbs tied up in woven cloth. Local antiquaries consider the objects as far older than the time of the Spanish conquest. The point of interest is the accumulation of guano above the surface."

In the year 1859, there was brought to New-York a collection

of gold objects, purporting to have been found in the *huanu* of the Chincha Islands. They were disposed of to a dealer in bullion, while in whose hands they were examined by the late Mr. THOMAS EWBANK, who described them as follows:

Fig. 1. Object in gold, from the Chincha Islands.

"No. 1 is the representation of a man cut out of a thin and flat piece of metal. A ruder attempt at the human figure is scarcely conceivable. The nose and eyes have been raised or embossed by rough punches, and are so exaggerated as to give the face the appearance of that of an owl. What is meant for the head-dress is indicated by a slit at each side of the head. The arms are distinguished from the body in the same way, the whole forcibly reminding one of the anomalous paper figures cut out by children. There are small holes, as if to attach it to some fixed object by pins, or possibly for suspending it by twine.

"The edges are excessively ragged, having been cut, no doubt, by stone chisels. They afford another corroboration of the alleged absence of any thing like shears in ancient Peru, and of the admiration of the natives when the Spaniards introduced scissors among them.

"With this was found a cup, raised out of thin metal by the hammer, the marks of which are as observable on the convex surface of another and similar article as if just made. The edge has been leveled and smoothed off by abrasion. The weight is slightly less than that of twelve gold dollars.

"But the most interesting fact in relation to these trifles is that of their having been disinterred on a guano island, *with thirty feet or more of that material resting upon them.* How many ages did it require to produce this depth of covering? What the annual or centennial rate of increase is now, we know not; but if it were known, it would scarcely be applicable to remote times, when the birds were seldom disturbed by human visitors. The Peruvians, under the Incas, used guano as a fertilizer; and from the place of their discovery, those relics doubtless date back to an early period of Peruvian annals. From the excessive rudeness of form and finish of the principal one, it may well be supposed to have preceded the advent of the first Inca.

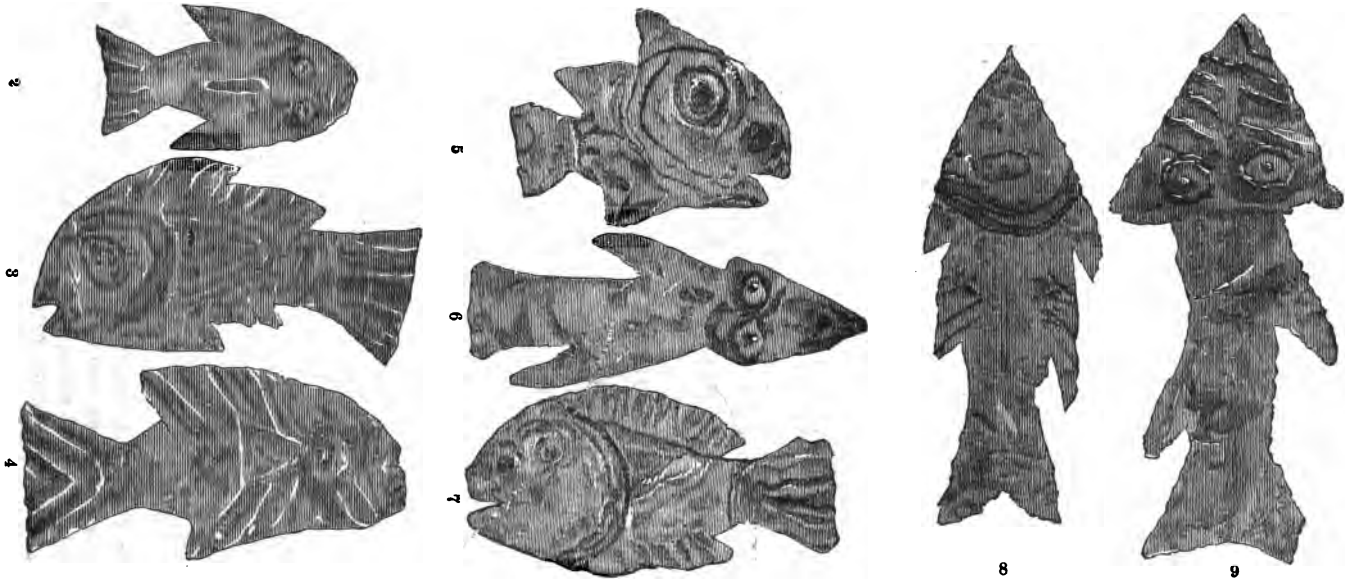
"Mr. Farris, the owner of the collection of antiquities purchased by Mr. Folsom for the Ethnological Society, informs me that he has been on the Chincha Islands, and has seen golden relics found on them, especially on Chincha Alta, the largest and highest one. They are always found, he said, on the *rock*—that is, beneath the lowest stratum of guano. Hence they were either placed there before that material began to accumulate, or

on spots that had been cleared off, and left until buried under the present deposit."

Subsequently, Mr. EWBANK recurred to the subject of articles found in the *huanu*, in a communication to the late American Ethnological Society :

"A specimen of Indian art from one of those islands, it will be remembered, was laid before the society several months ago—a small and rude human figure, in sheet gold. Its chief interest arose from its having been discovered under a vast superincumbent deposit, indicative of a remote and indefinite antiquity. In opposition to this, the idea was suggested, that it might have been concealed in a cavity dug in the *morro* or bluff, and might therefore be of comparatively modern date. Remains of Indian art have been dug up ever since the shipment of the deposits began; and in no case do we hear of their discovery *on the coast.* On the contrary, they appear wherever excavations have been made; and, judging from the frequent references made to them, considerable quantities must have been collected. A correspondent of the *Herald*, in a letter dated at the islands in November last, mentions, among other matters, '*Curiosities and Relics found in the Guano.*' Speaking of the North-Chincha, he says, 'It is estimated that on this island there is sufficient guano to supply a demand like the present for fifteen years to come. The guano in some parts is from one hundred to two hundred feet in depth. That the island was inhabited before the upper deposits of guano took place is shown by the fact that at certain depths curiosities are found, such as rings, armlets like those worn by Indian princesses, human images in gold and ivory, clay pots, and wooden pikes, supposed to have been used by the Indians in digging the guano, the fertilizing properties of which they were undoubtedly acquainted with. The whole island is undermined with caves and grots, some of them 100 feet in diameter, which are frequented by seals and sea-lions.' It is this indiscriminate dispersion of the relics over the islands that gives them all their value, as elements of historical data."

In the year 1867, I received from Mr. HENRY SWAYNE, an intelligent gentleman of Lima, a series of representations of fishes of various kinds, cut out from thin plates of silver. The eyes, fins, and other features are "struck up" (that is, showing in relief on one side, and in depression on the other) by a die or other instrument. They are characteristic, being very accurate representations of fishes actually found in Peruvian waters. The circumstances attending their discovery were thus briefly communicated by Mr. SWAYNE :



Silver Fishes found in the *Huanu* of Peru, South-America.

"I avail myself of the first opportunity to send you a number of small silver fishes, which were taken out, by the captain of a coasting vessel, a friend of mine, from the guano of the Chincha Islands, *thirty-two* feet below the surface. I think they will go far to establish the high antiquity of the aborigines of this country. This friend of mine, Captain Juan Pardo, an Italian, saw taken out of the guano, at the same time that these fishes were found, the body of a female, lacking the head, which, however, was discovered at some distance from the skeleton. The chest, breasts, and ribs were covered with thin sheets of gold, and the whole would have been a most valuable relic had it been preserved as found. But the workmen divided the gold, part of which was sold to captains of ships loading guano, and the body thrown into the sea."

In the collection of the Institute is an ancient *poncho* of cotton cloth taken from a tomb, among the ruins of Grand Chimu, on the mainland, near Truxillo, several hundred miles north of the Chinchas, which is freely ornamented with silver fishes, differing in no essential respect from those sent to me by Mr. SWAYNE. They are sewn on the cloth, through small holes punched in them—a feature found in the articles from the *huanu*, and justifying the inference that these also formed the ornamentation of some article of wear buried with the dead, but which had decayed.

Mr. EWBANK, in reporting to the Ethnological Society on the ornamented *poncho* alluded to above, stated that the cloth was of spun and woven cotton, "with two threads in the woof and three in the weft," and that on the head of the body with which the *poncho* was found was a thin silver plate, in the form of the fish known as the *skate*, in which were "struck-up" representations of fishes, similar to those attached to the *poncho* itself. Fig. 10 is an engraved copy. The original is nine and a half inches in greatest length, and five and a fourth inches in greatest breadth.*

Perhaps the best and only exact account of the discovery of relics in the *huanu* is afforded by Mr. J. P. DAVIS, of Massachusetts, who, in 1863–4, was government engineer of Peru, and

* Ornaments of this kind, sometimes in the form of plumes, often of gold, and very elaborate in design, were worn by distinguished persons, in the interior as well as on the coast of Peru, as a mark of distinction. The handle or stem, if it may be so called, was inserted between the forehead and the fillet encircling it—in fact, a silver or gold *aigrette*.

in that capacity surveyed the *huanu* islands and reported on the extent of the deposits on them. To determine the latter, it was necessary to make borings and excavations. During the course of the latter he found the ruins of some kind of an edifice, various articles of pottery, and a wooden idol. The latter is a little over a foot high, representing a squatting female, with the legs crossed and hands clasped before the breast. The ears are represented as bored, and their lobes widely distended. It is so completely saturated with the salts of the *huanu* that it has very nearly the specific gravity of marble. Here is the account of Mr. DAVIS:

"The wooden idol was found on the South-Guañape Island, at an elevation of about 450 feet above the sea, and on the edge of a precipice of that height. It was among the ruins of what appeared to have been a stone hut, covered to a slight depth by *huanu*. These were accidentally uncovered in excavating to determine the thickness of the *huanu* at that point. With it were found several earthen utensils and idols. There were three of the latter in very good preservation, showing a good deal of artistic skill, each about four inches high. There were two water-jars or flasks, one in the form of a fish, the material of which was very much decayed, coming off in flakes, and having all the indications of great antiquity. The idol is somewhat decayed, and has the appearance of having been carved about the time of the flood. It has a benignant countenance, an ample belly, and an atrocious smell."

I have here brought together about all the accessible information we have concerning the objects of art, etc., found in the *huanu* islands thus far explored. These objects differ only as individual specimens from similar articles found on the mainland, whence, in the absence of the means of supporting life on the islands, where there is neither wood nor water, nor vegetation of any kind, they must necessarily have come. The islands on which they have thus far been found are within plain sight of the mainland, the Chinchas being only twelve miles, and the Guañapes but seven miles from the shore, and easily accessible therefrom by the rude *balsas* or rafts of the ancient inhabitants of the coast—the Yuncas and Chinchas—the former having their territories opposite the Guañapes, the latter opposite the islands to which they have given their name. Both were more or less affiliated, possessing

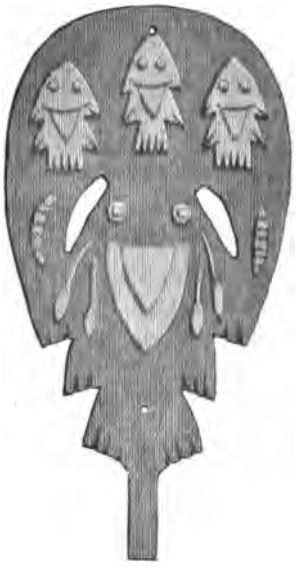


Fig. 10.

Silver Ornament from Truxillo.

Fig. 11.

Wooden Idol from the *Huanu* Islands.—Front.

Fig. 12.

Wooden Idol from the *Huanu* Islands.—Side View.

Fig. 13.

Wooden Idol from the *Huanu* Islands.—Rear View.

substantially the same arts and architecture, and having common modes of life, but neither were Incas nor of Inca (Quichua) stock, although, not long before the Discovery, they had been reduced under Inca rule. We know both of these peoples resorted to the islands to obtain *huanu* for fertilizing their lands; perhaps, also, to procure the eggs of the myriads of birds that frequent them. To these ends they may have kept up on them some kind of establishments, as Mr. DAVIS's discoveries imply, taking with them their *huacas* and *canopas*, the idols of their superstition, and the Lares and Penates of their households. They may, under exceptional circumstances, have buried their dead there, or made offerings of gold and silver to the mysterious beings with which they peopled hill and valley, rock and promontory, and to some of which they were sure to assign the protection of the islands whence they drew the material to fructify their fields.

The existence of relics on the islands, I repeat, is no matter of surprise. The interesting questions are: Can we credit the accounts of the depths at which they were found or it is pretended they were found, and if so, are we necessarily to infer that the *huanu* above them is the result of accumulation after their deposition?

As regards the first query, clearly we have no competent evidence of the facts connected with the various finds, except that of Mr. DAVIS, and the articles he found "were covered, *to a slight depth*, by the *huanu*," the result of accumulations or the drift of the surface material. As to the evidence of the Mr. FARRIS quoted by Mr. EWBANK, it is that of a known impostor, and undeserving the slightest credit. It is needless to throw doubt on the alleged "statement of an English engineer;" the statement itself making the task supererogatory. And as to the other accounts, they are far too vague to be accepted, in this epoch of positive science, as the basis of rational speculation regarding the antiquity of man or his works on the shores of Peru. Articles may be found at considerable depths in the *huanu*, where they have been buried. They may have been simply deposited at the surface and fallen down, to an apparent great depth, with the disintegration or "caving" down of the wall of the material in course of removal, and

thus appear to have been deposited there. We must, however, exhaust the easiest modes of resolving a question before resorting to those that are complex.

And here I may observe that, in all that has been written on the articles found in the *huanu*, it has been assumed that the vast beds of that material on the Peruvian Islands are the deposits, the *excreta*, and decayed bodies of water-fowls, seals, etc., which have accumulated in the course of ages. But these deposits are regularly stratified, and although science may not have yet satisfactorily accounted for their origin, it no longer accepts the old and popular notion on that point as satisfactory. It is hardly admissible.

E. GEORGE SQUIER.

NOTE.—At a meeting of the Anthropological Institute of Great Britain and Ireland, June 19th, 1871, according to a report in the London *Athenæum*, "Mr. J. Harris exhibited, from Macabi Island, off the coast of Peru, wood carvings, pottery, and cotton rags. The rags extended many hundred yards, at an average thickness of five feet, and below a deposit of several feet of guano. The wood and pottery were discovered at a depth in the guano, of from fifteen to forty-five feet."

The "rags" here described as of *cotton*, are evidently the same referred to (*ante* p. 48) as woolen.

SCULPTURED ROCKS, BELMONT CO., OHIO.

In the county of Belmont, in the State of Ohio, near the town of Barnesville, are some interesting sculptured rocks, well deserving the critical attention of the archæological student. I visited the locality soon after the discovery of the sculptures, and made the drawings which illustrate this paper, on the spot. When my attention was first called to these stones, it was under the representation, which, I may add, was at the time accredited by very respectable authority, that they were sandstone slabs containing fossil footprints of quadrupeds, birds, and man. Curious to know if this could really be so, I visited the spot, and soon convinced myself that the footprints in question were in fact, as indeed there had been good reason to anticipate, artificial; the skillful handiwork of some ante-Columbian artist. There are two tablets, which lie exposed upon the top of a hill, shaded by lofty trees. They are the outcropping, or upheaved slabs, of the coarse carboniferous grit of the Muskingum coal-beds. They lie, slightly tilted, a foot or two above the general plane of the soil, presenting a flat, tolerably smooth surface; and measure, respectively, about 10 by 12 and 11 by 14 feet, though the general outline of each is irregular. Upon the upper, moss-covered surface of these slabs, these interesting intaglios are to be seen, covering several square feet with impressions of the foot-tracks of several species of animals, and among them those of man, both juvenile and adult.

As will be seen by reference to the illustrations, it is easy to recognize the feet of the buffalo, the deer, the wolf, or possibly the dog, the bear, land birds, (certainly the turkey,) water birds, and, prominently, of man. These impressions are evidently chiseled or scraped out, with great natural fidelity and surprising artistic skill; presenting in each case the exact

appearance of the natural tread, in plastic clay, of the different animals represented.

They are well calculated to deceive even the most practiced observer, and one may be readily excused for believing, as

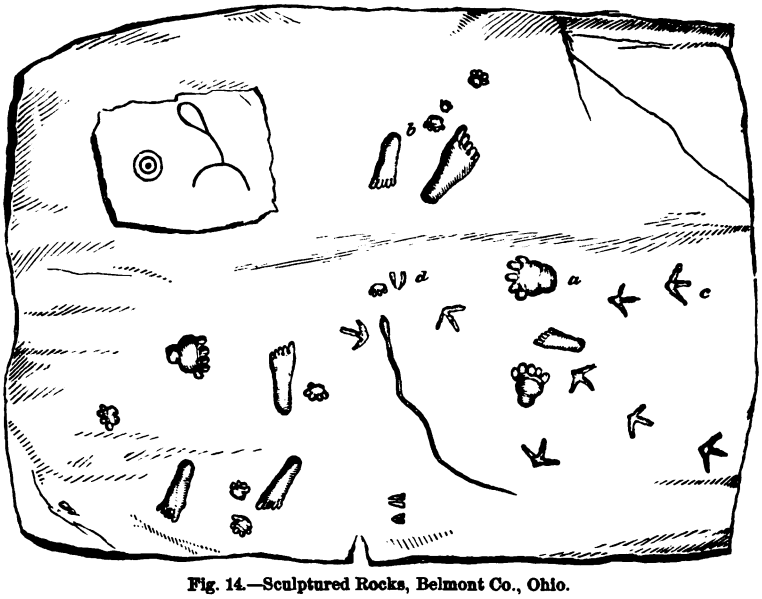


Fig. 14.—Sculptured Rocks, Belmont Co., Ohio.

many did, that they were really natural tracks. I confess to a difficulty in persuading myself that the bird-tracks, especially, were not genuine; the details as to the general plant of the feet, the spread of the toes, the joints, the phalangial cushions, the whole impression of each track, were so perfect, that I almost accepted the suggestion that they were all real; and that the Indian artists, attracted by their frequency and beauty, had thence taken the fancy to execute upon the same stones similar impressions of the prints of their own feet and those of the animals with which they were most familiar. This view was not without plausibility. A more attentive inspection, however, soon convinced me that the tracks were all alike the product of human art. The evidence of this is, indeed, decisive; and gives to these sculptures an important historical value. They are the record "laid in the rock" of a long vanished people, possessed of considerable æsthetic culti-

vation—the enduring testimony of an age of art by no means contemptible. They are the skillful work of students and thinkers; of men familiar with natural forms, and capable, not only of distinguishing their characteristic differences, but of artistically describing them, executing their illustrations in a most intractable material, and with very inadequate tools. Who could do these things, could do much else of a like nature, as well or better. In any civilized community of our own day, however advanced in general art and science, how few, let us think for a moment, could execute these sculptures, even with the aid of the improved tools and appliances of the modern stone-cutter. Not I, not any one, I venture to say, of the company present; not many professed and experienced stone-cutters.

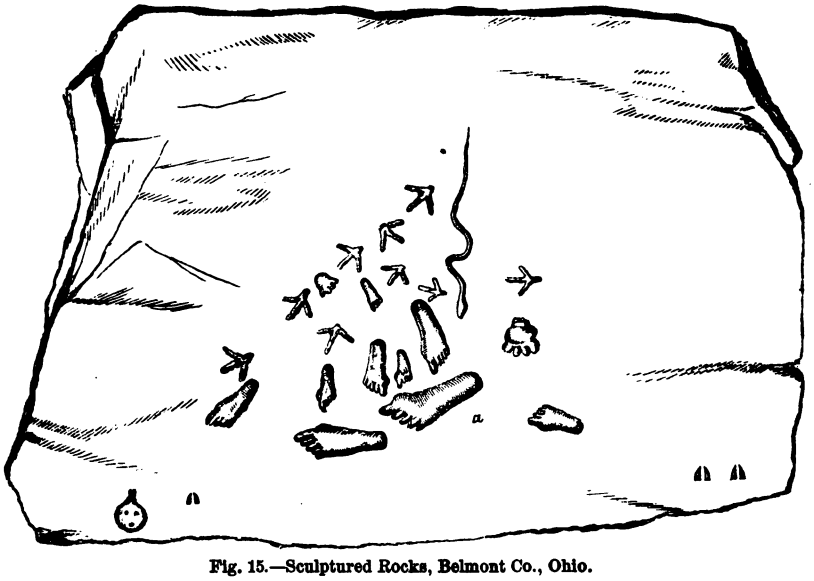


Fig. 15.—Sculptured Rocks, Belmont Co., Ohio.

Let it be noted that these figures are intaglios, cut into the rock to considerable depth, rounded and shaped with a sure eye and a correct hand. This will be readily seen by an inspection of the figures in the annexed plate, which are drawn with the aid of photographs, taken from plaster casts of the original sculptures.

Engraved figures of the foot-tracks of animals are quite com-

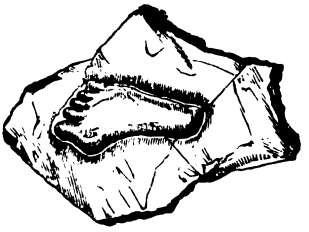


Fig. 16.—Foot-print of Boy.

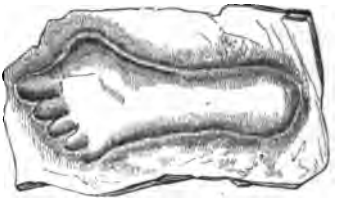


Fig. 17.—Foot-print of Man.

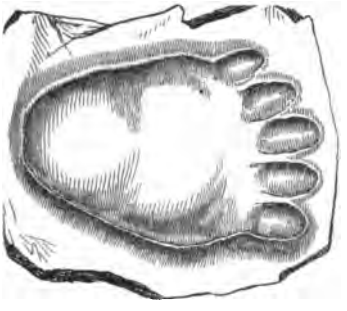


Fig. 18.—Bear.

Fig. 19.—Wolf.

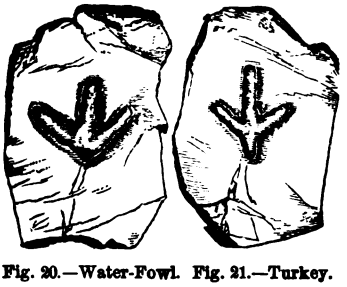


Fig. 20.—Water-Fowl. Fig. 21.—Turkey.

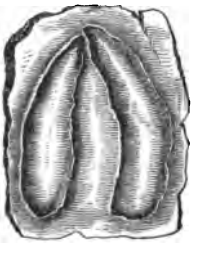


Fig. 22.—Buffalo.

REDUCTIONS OF THE LARGER TRACKS ON THE BELMONT COUNTY ROCKS—FROM PHOTOGRAPHS.

mon throughout the United States; rarely, however, in association with those of man, and generally they are mere scratches in outline. Such rocks are especially frequent in the States of Ohio and Virginia. A brief notice of the most notable will not be uninteresting. In a letter to *Silliman's Journal* in 1822, Mr. Schoolcraft called attention to the then new discovery of "two curious prints of the human foot in limestone rock" on the western shore of the Mississippi, near St. Louis. These prints he describes as strikingly natural, exhibiting every muscular impression with a precision and faithfulness to nature which, he said, he was not able to copy with exactness in the drawing accompanying his account. This discovery excited much attention, and casts of the impressions (the originals having been cut from their native bed and removed to New-Harmony, Indiana) were sent to the leading scientists of this country and of Europe, by many of whom they were regarded as genuine fossil human tracks. Mr. Schoolcraft himself was of this opinion, and so also was Mr. Mantell, the distinguished English geologist, who writes of them as follows: "No doubt exists in my mind that they are the actual prints of human feet in soft sand, converted into solid rock by the infiltration of calcareous matter." Mantell and others who held this opinion were deceived by the naturalness and beauty of the work. "I can not conceive," says Senator Benton, "that there is an artist in America possessed of the skill necessary to produce such perfect and masterly pieces of sculpture." Dr. Mantell's expressions of admiration are not less extravagant, and, we are now justified in saying, hasty. "They evince," he declares, "a skill and fidelity of execution which even Chantrey could not have surpassed."

Meanwhile, there were equally competent observers who did not share this opinion. But the question remained undecided till 1842, when Professor David D. Owen, the slab containing the figures having come into his possession, published his conviction that the prints were not natural, but manifest intaglios, of artificial origin. At that time there were no similar sculptures known in the United States. "To find myself," writes Mr. Owen to Professor Silliman—"the possessor of a 'fossil' unique in the cabinets of Europe or America, or

of a specimen of aboriginal sculpture shaming the best efforts of Chantrey's chisel, was a prospect calculated to quicken my perceptions of its merit and beauty. Nevertheless"—and so, at length, after twenty years' discussion, we get at the plain truth of the matter—"I regret," he adds, "to be compelled to the confession that I see no incredible display of anatomical knowledge or artistic skill; nothing more than we may fairly attribute to an observant and intelligent Indian, familiar with tracks of every description." Mr. Owen admits, however, the easy naturalness of the representations, but considers them unique of their kind. "Every writer," he says, "who treats of impressions of human tracks in solid rock, alludes to the specimen in my possession. It appears much less improbable," he concludes, "that some aboriginal artist should have exhibited unlooked-for skill in intaglioing a rock, than that man should have been coeval with the material in which they are cut." It is stated in the fifth volume of *Silliman's Journal*, page 225, that two supposed tracks of human feet had been discovered in a limestone quarry in Jefferson County, Missouri. A block containing the impressions had been cut out and placed in the outer wall of a stone chimney of a dwelling-house in that county; an arrangement which completely preserved and satisfactorily exhibited the prints to the observation of the curious. Drawings of these prints, which were those of moccasined, and not naked feet, were made, it is said, in 1821; but I can find no record or description of them beyond this brief note in the *Journal*.

But examples of these intaglioed representations of foot-tracks are not numerous; most usually the figures are drawn or scratched, merely in outline. Mr. William A. Adams, of Zanesville, Ohio, writing, in 1842, to Professor Silliman, describes some figures he had seen upon the surface of a sandstone rock, lying on the bank of the Muskingum River. The representations, he says, were engraved in the rock; being those of the tracks of the turkey, chiefly, and also of man: of the latter there were two figures, both of natural size, and accurately drawn, but only in outline, the lines being formed by a series of points or dots, as if done with the point of a tool. Mr. Adams thought it was the laying out or beginning of an

intaglio, the whole surface within the dotted outlines being also picked or dotted over; and there would seem to be some probability in the suggestion.

Rocks having similar engraved outline figures of animals and parts of animals, and especially feet, are of frequent occurrence throughout the Middle and Western States. Mr. Squier describes several of these, accompanying his account with illustrative figures, as in the instance of the sandstone block discovered on the bank of the Guyandotte River, in Cabell County, Virginia. In the centre of the upright face of this stone is drawn or scratched the rude figure of a woman, on either side of which are sculptured the tracks of the deer, the bear, the wolf, and the turkey, but not of man. The resemblances are stated to be quite perfect, and of the natural size. A similarly marked rock occurs on the Ohio River above the town of Steubenville, in Virginia. The figures are in the same outline style, and mingled with those of animals is found also the single print of a human foot.

Dr. Troost, in his report on the geology of Tennessee, states that in what is known as the Enchanted Mountain in that State, famed for the curiosities of its caves and rocks, there are several rock surfaces bearing engraved impressions resembling the tracks of turkeys, bears, horses (?), and human beings; as distinct and natural as if they had been really impressed in snow or sand.

The apparent identity of idea and significance which seems to characterize these engraved rocks was first pointed out by Mr. Squier, who, for this cause, regarded the inscriptions and figures as the work of the same people. "There is," he says, "a family likeness in their style and workmanship that seems to be conclusive on this point." He also adduces the further well-established fact of the use by the Indians of a system of representation, found all over the country, known as picture-writing, "as more clearly indicating their probable origin." I must think, however, that at that time, before the discovery of sculptures of such decidedly superior workmanship as distinguishes the Belmont County slabs, now brought to your notice, due weight was not allowed to the manifest difference, on the score of refinement of idea and artistic skill, between

that higher class of work and the mere outline scratches which characterize the more generally known engraved rocks.

Referring to the figures of the Belmont slabs, it will be noticed that the human feet represented are characteristically different, on the two tablets; those of the second drawing being distinguished by strongly developed bunions, with which those of the first are not provided. On one of the slabs is the rude outline figure of a human face; three dots represent the nose and eyes, and the forehead is crowned with an erect tuft of hair. On each is the very well drawn figure of a serpent in motion. The symbolic figures, in one of the drawings, are not upon the same stone with the tracks, but copied from a smaller stone adjoining. Similar, though not identical, graphic inscriptions, exist very generally on the engraved rocks of this country. Some day, perhaps, we shall understand their signification. On the Guyandotte rock, besides the familiar bow and arrow, are seen a right-angled triangle, a circle with another character in the centre, a character resembling the letter P, and an irregularly sected circle. The symbolic figures of the Belmont group are curious, and correctly represented in the drawing.* JAMES W. WARD.

NOTES.

NOTE 1.—In Forsyth County, Georgia, is a carved or incised boulder of fine-grained granite, about nine feet long, four feet six inches high, and three feet broad at its widest point. The figures are cut in the boulder from one half to three quarters of an inch deep.

As yet no interpretation of these figures has been offered, nor is it known by whom or for what purpose they were made; but it is generally believed they were the work of the Chero-

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* BIBLIOGRAPHICAL REFERENCES.—Squier and Davis. *Ancient Monuments of the Mississippi Valley.* Schoolcraft's *North-American Indians.* Jefferson's *Notes on Virginia. Silliman's Journal,* Vols. 5 and 42. *American Encyclopædia,* Vol. 3 of Supplement. Mantell's *Wonders of Geology.* Drake's *North-American Indians.* Troost's Report on the Geology of Tennessee. J. W. Ward, in *Annals of Western Lyceum,* Cincinnati.

kees. On the eastern end of the boulder, running vertically, is a line of dots, like drill-holes, eighteen in number, connected by an incised line. C. C. J., JR.

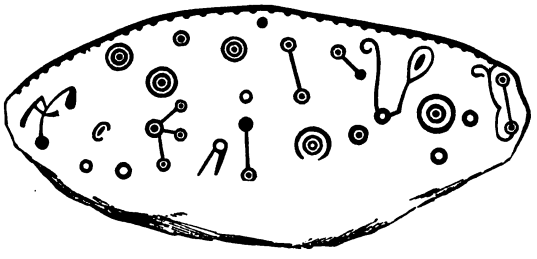

Fig. 23.—North side of Sculptured Rock, Forsyth Co., Georgia.

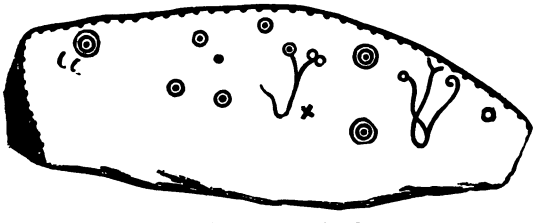

Fig. 24.—South side of the above.

NOTE 2.—In almost every part of America, in the most secluded and least populated districts, where there are no other evidences that man ever existed, we find rude sculptures on rocks and cliffs. These are generally called "inscriptions;" but they are only so—when not the work of an idle fancy—in the sense of commemorating events or incidents in a pictorial way. They are really rough drawings, intelligible only to those acquainted with the events intended to be commemorated. The most celebrated of these "inscribed rocks," in America, is that of Dighton, Massachusetts, which some fanciful antiquaries have regarded as bearing Runic characters, and commemorative of some remote visit of the Scandinavians or Norsemen. But it is accepted now as of Indian origin, differing in no essential respect from hundreds of others sculptured by the red men. There are two such rocks in the bed of the Susquehanna River, Lancaster County, Pennsylvania, known as "Big" and "Little Indian Rock." The figures inscribed

on these, as shown in the accompanying engravings, are very fair examples of this kind of aboriginal workmanship, and only exceptional as being rather more *totemic* than is usual.

Fig. 25.—Inscription on Big Indian Rock.

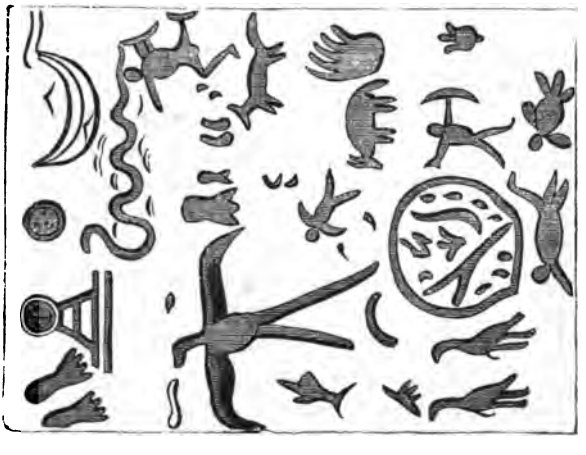

Fig. 26.—Inscription on Little Indian Rock.

The groups, it should be explained, are relatively more widely distributed *laterally* on the rock, than in the cuts, in which, however, they preserve, in other respects, their true relations.

CANOE IN SAVANNAH-RIVER SWAMP.

In 1845, while digging a canal on one of the rice-plantations on the Savannah River—only a few miles distant from the city of Savannah—at a depth of three feet and a half below the surface of the swamp, the workmen came upon a canoe imbedded in the soil. It answered to the description of what is familiarly known as a *dug-out*, and had been fashioned from the trunk of a cypress-tree.

Fig. 27.—Buried Canoe from Savannah-River Swamp.

About eleven feet long and thirty inches wide, its depth was scarcely more than ten inches. Both bow and stern were strengthened, each by a wooden brace kept in position by wooden pins passing through the sides of the canoe and entering the braces at either end. This boat curved upward at both ends, so that the bow and stern rose above the middle portion. About three feet from the stern was a seat, nine inches wide, consisting of a rude cypress plank. For its reception the inner sides of the canoe had been notched three inches below the gunwales, and it was further kept in position by four wooden pins—two on each side—driven through the boat and entering the seat at either end, as in the case of the bow and stern braces. The bottom was flat; the sides rounding. No effort had been made to form a keel. The bow and stern were both pointed, and not unlike in their general outlines, the latter being more blunt than the former. At the top the sides were rather more than half an inch in thickness, increasing, however, as they descended and curved below the

water-line. When cleaned and dried, this canoe weighed sixty pounds, and could be transported with the greatest facility by a single individual. The agency of fire had obviously been invoked in the construction of this little boat. While there were no marks of sharp cutting tools, the evidence appeared conclusive that the charred portions of the wood, both within and without, had been carefully removed by rude incisive implements, probably of stone. The plan of felling the tree and of hollowing out the log, as perpetuated in one of De Bry's illustrations, seems to have been observed in this instance; and regarding the regularity with which the outlines and the relative thicknesses of the sides of this boat had been preserved, one could not but admire the care and skill with which that dangerous element, fire, had been made subservient to the use of the primitive boat-builder. It is entirely probable that the ordinary stone axe or chisel was the only implement at command for the removal of the charred surface, as the cypress-tree was by degrees converted into the convenient *dug-out.*

This canoe had evidently lain for a very long time in its present position, and seemed to have settled gradually. There was an accumulation of forty inches of mud and soil above it, and around lay the rotting trunks, arms and roots of forest trees, which, during the lapse of years, had died and become intermingled with the *débris* of the swamp. Above the spot were growing cypress-trees as large, and seemingly as old as any in the surrounding forest.

It is difficult to form a satisfactory estimate of the age of this relic. That imbedded cypress is, for an almost indefinite period, well-nigh indestructible by ordinary agencies, is capable of proof. We have but to instance the salt marshes along the line of the Georgia coast, in not a few of which, at the depth of several feet below the surface, may still be found the clearly-defined and well-preserved traces of cypress forests, consisting of limbs, trunks, knees and roots. In former years, at least some of these salt marshes must have been fresh-water swamps; and, without the violent intervention of some marked convulsion of nature, of which we have no record and for which no plausible reason can be assigned, centuries must have

elapsed before a gradual settling of the coast could have occurred to such an extent as to have admitted the influx of tidal waves converting cypress swamps into extensive, uniform salt marshes, destroying the original growth, and finally covering the fallen forests with mud to the depth of several feet.

We are not aware that a sufficiently accurate record has been kept of the annual deposit of mud from the overflowing waters of the Savannah River to enable us to derive from this source a plausible conjecture as to the age of this canoe. So many uncertainties enter into calculations of this character, that in most instances all attempts to arrive at definite results fall far short of satisfactory conclusions. All we know is, that this Indian canoe is old—older than the barge which conveyed Oglethorpe up the Savannah, when he first selected the home of the Yamacraws as a site for the future commercial metropolis of the colony of Georgia—more ancient, probably, than the statelier craft which carried the fortunes of the discoverer of this western continent.

So far as our information extends, this is the first and only well-authenticated instance of the exhumation of an ancient canoe in this country. It is in just such a locality that we might have anticipated with greatest confidence the existence of such a relic. The general use of bark and skin in the manufacture of their canoes, by northern Indians, precludes all reasonable hope of finding ancient specimens made of such perishable materials. The use of the *dug-out*, like the presence of a stone ax or a jasper arrow-point, tells a true story of the art-condition of the people by whom it was made. It is the simplest form of water-craft, and evidences the first effort in the way of navigation. Hence, among barbarous tribes there is no essential diversity either in the shape of these primitive boats or in the methods employed for their construction.

The Andaman Islanders have single-tree canoes hollowed out with a *p*-shaped axe, and, in their labors, are assisted by the action of fire. On the north-eastern coast of Australia, the natives use boats formed from a single trunk, hollowed out by fire. The Clalam Indians excel in the manufacture of *dug-outs* made from the trunks of cedar-trees.

In the days of Columbus, the natives of San Salvador fashioned their canoes from the trunks of single trees, hollowing them out by fire and polishing them with primitive adzes of flint or shell. Lieutenant Timberlake, speaking of the canoes in use among the Cherokees, says, "They are generally made of a large pine or poplar, from thirty to forty feet long, and about two broad, with flat bottoms and sides, and both ends alike: the Indians hollow them now [1761] with the tools they get from the Europeans, but formerly did it by fire." The buried canoes in the valley of the Clyde were generally formed out of a single oak stem hollowed out by blunt tools—probably stone axes—aided by the action of fire. A few were "cut beautifully smooth, evidently with metallic tools." Hence, says Sir Charles Lyell, a gradation could be traced from a pattern of extreme rudeness to one showing great mechanical ingenuity.

Compared with the boat figured by De Bry or the *einbaum* of Robenhausen, or that taken from the peat-moor of Mercurango, or that found in the nook of Moringen—as represented in Keller's *Lake Dwellings*—the Savannah River canoe is more symmetrical and less trough-shaped than them all, and assimilates more nearly to the form of the modern canoe. The addition of the braces in the bow and stern is unusual, and the presence of the seat is by no means customary. The primitive river-craft of any people, no matter how low in the scale of civilization, is interesting; and, when the former occupants of the soil have passed away, leaving behind them relics at best but few and frail, we experience a sense of genuine satisfaction as we are thus furnished with the physical proofs of the precise manner in which the Indians of Georgia constructed the light barks in which they committed themselves to the waters of the Savannah. This rude canoe, from the Savannah swamp—perhaps the very first American canoe which has been unearthed—will be welcomed, as an interesting relic, by the archæologist. It confirms our conjectures, and substantially verifies the earliest and most reliable representations, which have been preserved, of the Indian canoes of the southern waters.

CHARLES C. JONES, JR.

TREPANNING AMONG THE INCAS.*

M. Broca presented to the Society an ancient Peruvian cranium on which trepanning had been performed during life, by a process entirely different from that practiced in European surgery.

Fig. 28.—Aboriginal Surgery—Trepanned Inca Skull from Peru.

The operation of trepanning is one of the most ancient in surgery; it is mentioned by Hippocrates, who speaks of it as

* From the Journal of the Anthropological Society of Paris, July 4th, 1867.

a usual operation, of which he appears not to have known the origin. Then, as now, trepanning was performed by means of a circular saw (*scie en couronne*) through a rotatory movement. There is nothing to indicate that the Greeks or their ancestors ever practiced the operation in any other way.

In the Peruvian cranium the trepanning was not effected by the removal of a circular section of the skull, but by taking out a square piece, bounded by four straight incisions.

No documents, known up to this time, have established the existence of regular surgery among the Indians of America before the arrival of Europeans. The specimen I present, therefore, reveals an entirely new fact, and it is necessary first to establish its authenticity. The name of the *savant* who discovered it, and has been kind enough to confide it to me, furnishes in this respect every desirable guarantee. Mr. Squier is the first archæologist of America. He is occupied, in a special manner, with the antiquities of Peru, and his high competence can not be called in question. This is a translation of the note sent to me by him, transmitting the cranium before you:

"This skull was taken from an Inca cemetery in the valley Yucay, twenty-four miles east of Cuzco, Peru. The cemetery is within one mile of the 'Baths of the Incas,' a favorite resort of the ruling family or race—their 'country-seat,' in fact. There is no doubt of its ante-Columbian date. The evidence of its authenticity is complete."

I may add that this skull, of which the walls are very thick, presents characteristics which could only belong to an Indian of Peru. And I now proceed to show that the trepanning was practiced during life.

Upon the left side of the external plate of the frontal bone there is a large white spot, quite regular, almost round, or rather slightly elliptical, 42 millimetres long and 47 broad. The outlines of this spot are not irregular or sinuous. The surface is smooth, and presents the appearance of an entirely normal bone. Around this, to the edges, the general color of the skull is notably browner, and is perforated with a great number of small holes, caused by dilatation of the canaliculi. The line of demarkation between the smooth and cribriform

surfaces is abrupt, and it is perfectly certain that the smooth surface had been denuded of its periosteum several days before death. It is thus in truth that denudations of the cranium behave. In the denuded points, the superficial layer of the external table, deprived of vessels, and thus deprived of life, undergoes no change and preserves its normal structure, while the surrounding parts, in undergoing the effects of traumatic inflammation, become the seat of the ostitis.

After considering the development of these perforations (*porosités*) of the external table of the denuded surface, it seems to me impossible to admit that the subject could have survived the denudation less than seven or eight days. M. Nélaton, who examined the specimen, thinks he may have survived fifteen days.

The trepanning was performed in the centre of the denuded part; but the four incisions, which circumscribe the removed portion, extend at their extremities to the very limits of the denudation. It is, from this, certain that the separation of the periosteum was produced by the surgeon, who performed the operation; for the denudation, more regular than it could be as the result of an accident, presents exactly, neither more nor less, the dimensions and form necessitated by the operation done upon the bone.

This operation consists of four linear incisions, two of which are horizontal and two perpendicular—the horizontal lines cutting the vertical ones at right angles, and sufficiently separated to include a rectangular portion of the bone 15 millimetres long and 17 wide—the rectangular portion of bone included by the lines was entirely removed down to the dura mater, and the result is a loss of bone, whose absolute extent corresponds very nearly to that produced by our circular trephines of ordinary size.

At their middle part the four incisions in the bone occupy its entire thickness, which at this point is 6 millimetres; and beyond the limits of the removed portion they become more and more superficial, and terminate in a slight depression on the surface of the bone at the limits of the denudation. The width of the incisions is about 2 millimetres in their middle and superficial part. This width diminishes in the deep parts,

so that the bottom of the cuts become linear; it diminishes in the same way in approximating the extremities of the incisions.

It is interesting to determine the nature of the instrument used in this operation. A small circular saw, resembling that used by surgeons, might make cuts very like those just described. Mr. Squier, to whom I first submitted this idea, showed me a drawing representing of natural size a curved instrument found in a Peruvian grave, and whose contour coincided exactly with the bottom of the four incisions; but, on the one hand, the instrument was not toothed; on the other, on examining closely the borders of the incisions, we are convinced that they must have been made by a pointed instrument, a large graver, or simply the point of a knife. What confirms this opinion is, that there exist on the surface of the bone several linear scratches, which strike off at a very acute angle from the extremity of three of the incisions. They are evidently attributable to deviations of the instrument, produced at the commencement of the operation, before the channel excavated by the reiterated motions of the point was sufficiently deep to prevent these slips.

It is evident that each incision consumed a great deal of time, if we reflect that the Peruvians had neither steel nor iron, and that their best metal was bronze.

There is evidently no resemblance between this mode of trepanning and that which has been known from time immemorial in Indo-European surgery. This is not, however, the first time that we have shown how very different in America and the old world were the first sources of industry, of sciences and arts.

In conclusion, I call attention to another question. For what motive has this trepanning been performed? There is no fracture or fissure of either external or internal table. We notice, it is true, on the internal table several very delicate linear cracks, but these present all the ordinary characters of those produced by time, and which are found in the majority of old crania. There was, then, no fracture, and the surgeon who performed the operation could consequently only be governed by the functional troubles in diagnosing the existence

of an intra-cranial lesion. Was this diagnosis correct? Did the operation succeed in evacuating a fluid poured into the cranium? I am far from affirming this, but am tempted to believe it. In truth, the internal table around the opening is the seat of a very different alteration from that which existed on the external table, around the denudation. It is in patches, the seat of little perforations, (*porosités*,) which attest the existence of an ostitis; but this does not seem to have been the result of the trepanning, because it is not at all regularly distributed around the opening. It is entirely wanting above the opening, it is slight below, a little better marked on the outside, and is only really well pronounced about a centimetre and a half on the inner side of the internal border of the opening. These peculiarities and several others, which would take too long to detail, are well explained, if we suppose that there had been for some days before the operation an effusion of blood under the dura mater.

What astonishes me is not the boldness of the operation, as ignorance is often the mother of boldness. To trepan on an apparent fracture at the bottom of a wound is a sufficiently simple conception, and does not necessitate the existence of advanced surgical art; but here the trepanning was performed on a point where there was no fracture, or probably even no wound, so that the surgical act was preceded by a diagnosis. That this diagnosis was exact, as is probable, or that it was false, we are in either case authorized to conclude that there was in Peru before the European epoch an advanced surgery, and this idea, an entirely new one, is not without interest in American anthropology.

M. Leguay.—After examining closely the incisions, their form, appearance, and inequalities they present, I agree with M. Broca, that they must have been made by means of a sharp-pointed metallic instrument, a graver, (*un burin.*)

NOTE 1.—After examining carefully this interesting skull, and reading the able opinion of M. Broca, an idea occurred to me, which may afford an explanation of the nature of the injury that led to the operation, and the reasons for which it was performed. According to the account of M. Broca, there

is no satisfactory reason for the performance of so bold an operation. He has made no allusion to the probability of a *punctured wound*, one made with a small, sharp-pointed instrument. Very small perforations of a skull are sometimes made by a bayonet, dirk, etc., without fracture. They, however, often cause extravasation of blood within the cranium, violent inflammation, suppuration, delirium, coma, etc. A punctured wound, followed by such symptoms, would clearly indicate trepanning to a surgeon of our day. The operation too would remove the whole of the injured bone, and leave no trace behind of fracture or other bone injury.

Such, to my mind, is the rational explanation of the kind of injury inflicted, and of the symptoms, which justified the operation. J. C. Nott, M.D.

Note 2.—I agree in the opinion expressed by M. Broca, except in this, that I think the cut was made not by a bronze graver, but by a quartz knife. J. W. Draper, M.D.

Note 3.—The spear, lance, and arrow-heads of the ancient Peruvians were generally of bronze, sharply pointed. I have in my collection a bronze lance-head, with a socket at one end for the reception of a staff or handle. At this point it is round, measuring a trifle over half an inch in diameter. The socket extends inward five and a half inches, and from the point where it terminates the solid portion of the lance gradually assumes a square form, and tapers regularly to a point. The whole length of this lance-head is twenty-three inches. What may be called spear-heads are heavier, thicker, and not as long. The arrow-heads are of similar form with the lance-heads, usually about five inches long; also fitted with a socket for receiving the shaft of the arrow. Among the ruins of Grand Chimu, Northern Peru, near the principal gateway of an ancient fortress, called "El Castillo," and where, according to tradition, was fought the final, decisive battle between the Chimus (Yuncas) and the Incas, I found a vast number of skeletons, the skulls of most of which showed evidence of violence. Some were crushed in, as if from the blows of a club;

others were cleft, as if by the stroke of a battle-axe, and others perforated, as if by lances or arrows, exhibiting a small square hole corresponding precisely with what would probably be made by the weapons I have described. In fact, I found a skull thus perforated, with a bronze arrow still sticking in it. The orifice was a clear one, with no radiating fissures. I regret that this interesting specimen was lost, with other valuable relics, on its way to the United States. These facts, it appears to me, tend to sustain the hypothesis of Dr. Nott in regard to the wound or injury leading to the operation of trepanning in the skull from Yucay. E. G. S.

MISCELLANEOUS.

THE *Friend of India* contains a letter from the Superintendent of Police in the north-eastern district of Bengal, giving an account of *scalping* among the wild tribes on the frontier of that district. In commenting on this letter the journal above named says, "The Naga tribes use the scalping-knife with a ferocity that is only equaled by the American Indians, and the scalps are carefully preserved as evidences of their prowess and vengeance over their enemies. On the death of a chief, all the scalps taken by him during his warlike career are burned with his remains."

THE eminent English traveler and naturalist, Mr. A. R. Wallace, defines anthropology as "the science which contemplates man under all his varied aspects, (as an animal, and as a moral and intellectual being,) in his relations to lower organisms, to his fellow-men, and to the universe."

VOL. XVII. of the *Smithsonian Contributions to Knowledge* is devoted to a memoir, by Lewis H. Morgan, entitled, "System of Consanguinity and Affinity of the Human Family," containing a series of facts interesting to the student of philology and ethnology.

THE ARCH IN AMERICA.*

On several occasions, I have taken the trouble of calling the attention of the Society to a series of archæological impostures that have found a place in our newspaper press—chiefly in the newspapers of the West, where there seems to be a morbid tendency in this direction. Most of them are too transparent to deceive any man of ordinary intelligence, but a few are rather adroitly conceived, and have led some very clever students into a painful kind of semi-credence. At their instance, I have several times taken the pains to "hunt down" the current story, and to find it "a hoax." You will remember the "full and particular" account of the vast subterranean temple in the Palisades; the wonderful excavations under Rock Island; the remarkable tunnel under the Mississippi River, opposite St. Louis; "the great stone jug in Martin County, Indiana, eighty feet high;" "the Onondaga Giant;" "Professor Scott's discoveries in Utah," etc., *ad nauseam*. I am almost ashamed to refer to these preposterous stories, which fall within the same category with the accounts of the golden plates of Mormon, the "Holy Stones" of Newark, the Grave Creek inscribed stone, and Pontelli's Discoveries in Guatemala. But when we look back to what the exact sciences have had to pass through, in the way of absurdity and extravagance, before they took a positive shape, we can not wonder that the infancy of American archæology should be thus beset. The task of fool-killer is not, however, a pleasant one, nor yet that of clearing away the dead wood of falsehood and ignorance. It is far easier to inculcate a truth than to eradicate an error.

Apart from sheer inventions, like those to which I have al-

* From the Proceedings of the Lyceum of Natural History of New-York.

luded, there is another class of impostures, made such by extravagance of description, and absence of critical or accurate appreciation on the part of observers. I mean in matters in which there is a basis of truth—a granule around which careless explorers and loose writers contrive to crystallize a mass of startling and utterly erroneous statement, without apparently being fully conscious of what they are doing. Striving after effect—the prevailing vice of American writers of a certain class—often carries men past the line of simple extravagance, into the region of real if not intentional falsehood.

I am led to make these remarks, from having just seen in the newspapers what purports to be a *résumé* of a report of "Gov. Arny, Special Indian Commissioner in New-Mexico," in which he describes certain ancient remains in the Cañon of Chelly. There is no reason to suspect the accuracy of the report generally, for the existence of extensive ruins in the region between the Gila and Colorado has been known for hundreds of years. Nor am I surprised at the popular, uncritical, and utterly unsupported hypothesis that ascribes these remains to the "Aztecs." But when I read that among the ruins are found "*handsome arches* and other architectural devices and ornaments," I suspect something more than extravagance of statement.

In all my explorations in the western part of our own country, and in Central and South-America, the seats of highest aboriginal civilization, I have only once found the arch proper among remains *prima facie* aboriginal, and that was among the ruins of Pachacamac, twenty miles south of Lima, in Peru. The building in which it occurs is of Inca origin, and called the Mamacona—that is, Convent of the Virgins of the Sun. It is one of several of the same origin intruded among the far more ancient structures of the natives of the coast, subsequently to the Inca conquest. As will be seen from the photographs that I now submit, this is a perfect, well-turned arch, composed of adobes of large size, in all respects equal to any composed of similar material that are raised to-day. It is said that arches are also found among the aboriginal monuments in the vicinity of Tumbez, Northern Peru.

We all know that a kind of bastard arch, formed by over-

lapping stones, or flat stones set at a certain pitch against each other, like the rafters of a house, was known among all the relatively-civilized nations of the continent; but the true arch is a thing exceptional, and the one to which I have alluded entirely enigmatical, as I can scarcely conceive that the knowledge and skill of which it gives evidence could have existed even among those wonderful architects, the ancient Peruvians, without having a wider or more general application.

I do not believe in the existence of arches among the ruins in the Cañon of Chelly, or anywhere else in New-Mexico, except among the remains of the old Spanish missionary establishments, which have more than once been confounded with the monuments of the Indians.

But whatever exaggeration or error of statement may have been made about the ruins in the Cañon of Chelly, it is dwarfed by the assertion that was made by Captain Carmichael, at the meeting in 1870 of the British Association in Liverpool, namely, that "he had recently returned from California, where he had heard a Japanese and a Digger Indian of Nevada, then brought together for the first time, *converse intelligibly!*" I heard a similar story about the remnant of the Yunca or Chimu Indians, of the town of Eten in Peru, who preserve their ancient language. These, it was alleged, could converse freely with the newly-arrived Chinese. I hardly need say that I did not find the slightest ground for the statement.

E. G. S.

INDIANS OF OREGON, ETC.

[NOTE from Rev. Gregory Mengarini, S. J., Vice-President of the College of Santa Clara, California. Communicated by George Gibbs, Esq.]

I BEG to acknowledge the receipt of your favor of the 1st inst., and I hasten to answer your questions to the best of my knowledge.

In my opinion, the word *Oregon* is not an Indian word at all. I know of only two tribes who in their alphabet possess the consonants R or G, namely, the Cœur d'Alênes and the Crows, both too far off to supply a name to the first settlers of the sea-shores. It may be an Indian word, but corrupted by the whites in the same way as we find in every map the Indians called *Peagan* and *Okanágan*, meaning thereby the Blackfeet and a tribe near Fort Colville, but whose names are really *Pikani* and *Ukinakeia.*

In one of the numbers of the *Oregon Statesman*, I think, I read that somewhere about Rogue River or Cools Bay, a plant is found to which it is said the Indians of that country give the name of *Oregon*, whereby the whites seem inclined to believe that they have found the origin of the word, which would imply that those Indians have in their alphabet both *R* and *G*, of which I am not aware.

I will submit to you a story which I heard in 1842, about this name of *Oregon.* The story runs thus: a band of Mexicans, perhaps fishermen, were thrown by a *hurricane* on the northern shores of the Pacific, where they saw a new people and a new land. On their return they met an English ship, on board of which they were taken, and there they related, as best they could in their broken English, their adventures about the *oregon*, meaning thereby the *hurricane* they had met with; and they repeated the word so often that the captain, unable

to understand them, took it for granted that the name of the newly discovered land was Oregon. I do not know whether we may rely at all upon this story, which otherwise would be confirmed by the fact that out of fifty Spaniards of the common caste, who try to speak English, not one of them will pronounce the word *hurricane* otherwise than *oregon* or *oregone*. I have tried it myself many a time in engaging Spanish sailors to relate in English the sea-storms they had passed, and I found invariably that their *hurricanes* were all *oregons*. If the aforesaid story has any grounds for truth, it certainly could be had only by consulting the report of the first visitors or discoverers of this country, and consequently from England.

The notions of the Flatheads about killing the horses on the grave of a dead chief correspond exactly with what you have heard from the Spokanes, namely, that the ceremony was only intended to do honor to the dead chief, and not that they believed the horses could be of any use to the deceased.

I was not aware that the Nisquallies are a branch of the Flathead tribe; but if that information surprised me, you will not be less surprised when I tell you that Flatheads are also to be found, far away south, beyond the Rogue River Indians. I got this information, lately, from Wakkaw, a native Flathead, but thoroughly civilized, residing a few miles from my residence, and who accompanied General Lane in his tour to the south, four or five years ago, in the capacity of guide and interpreter. I was one day remarking to him that in the maps of Oregon made by Mr. Raston, I had found the name of a river between Rogue River and the Umpqua to be *Squalchin* River, which word in Flathead language means *crane*, with which birds the rivers of the Rocky Mountains abound, and I asked him whether he thought that the same word, squalchin, might signify the same thing among the Indians of the south; whereupon he informed me that, although he did not know any river by that name in the south, he was sure that there were plenty of Flatheads there; that when he went with General Lane, they reached a tribe of Indians on the sea-coast, quite separated from all others, who had neither horses nor fire-arms, both of which they had never seen before; that in approaching

them, one of the Indians began to count the travelers as they reached him—*one*, *two*, *three*, *four*, in clear Flathead tongue. Wakkaw, on hearing them, continued in the same language, *five*, *six*, *seven*, and for a while both believed to have found a countryman in this meeting; but in talking both perceived that their language, though radically the same, was by incidental changes too much at variance for sustained conversation. So in the said numeral name, the only difference consisted in this, that the Flatheads say, *nkó*, *essél*, *chélés*, *muss*, *tsil*, *takkan*, *sispel*, *chenem*, *gavát*, *open*, and the South Indians say, *náko*, *èssel*, *chètles*, *muss*, *tsil*, *tèkan;* seven and eight are quite different, which Wakkaw did not recollect; *gànat*, *ópen*, so that the chief difference consists in the accentuation. Besides these words, he gave me some half-dozen more, with a very slight difference from the Flathead, so that the one is doubtless a dialect of the other. I regret that I did not take note of the other words besides the numbers, and as the said Wakkaw has gone to the gold-mines of Colville, I can not consult him on that point. Now, we have Flatheads in three different points, north, south, and east, very far from each other; as to which of them possess the parent language, nobody I think can give an opinion, except after having traveled among them and studied for himself; for who knows whether these three tribes are the only ones of a common origin? Perhaps there are still others further south, or further north, though there are none further east. We have no information or tradition whatever about their migration; the line thereof could only be discovered by comparing dialect with dialect, and by examining the root of every different language spoken by the neighboring tribes.

I will give you now a short outline of the religious traditions of the Flatheads, comprising also their notions about the globe, etc.

The earth, according to them, is not spheroidal but flat, and surrounded with water on all sides, like an island, and heaven or sky is nothing else than a huge hollow mountain, covering the earth, as the covering of a kettle. Before the creation, *Skòmelten*, (obsolete word, meaning mother, and which was substituted by the word *Skói*,) a woman very powerful, and

who took existence by herself, begot a son without assistance of man, and this son undertook to create heaven, and earth, and man; and for his dwelling he chose the summit of the covering, namely, heaven, whence he took the name of *Amòtkan*, which means, *He who sits on the tops of the mountains;* when Skòmelten, his mother, remained above on another land beyond the waters; for besides our earth, they thought that *Amòtkan* created other worlds, under, above, and around us.

This *Amòtkan* was then considered as their invisible God, who has also many sons, though no wife; and when the Indians saw the whites for the first time, they considered them to be the natural sons of *Amòtkan*, and consequently immortal, until they saw one of them killed by the Blackfeet.

The first generation of mankind became very wicked, and turned a deaf ear to the admonitions of *Amòtkan*, who, in his wrath, drowned them all in a general inundation. *Amòtkan* undertook a second creation of a race of people, twice as tall as the first ones; but proving worse than the first, they were all destroyed by fire which came from heaven. The third generation being as bad as the first and second, was destroyed by *Amòtkan* through a general pestilence. The fourth generation would all have been annihilated on account of their crimes, had not mother *Skòmelten* interceded with her son in behalf of mankind. The wrath of *Amòtkan* was appeased by the prayers of his mother, and he promised never to destroy his creations again. But until that time the world was in perfect darkness, there being no sun; and the people being persuaded that the darkness was the cause of their wickedness, they held a general council for the purpose of enlightening the world; but as every one refused, *Sinchlèp*, (a small prairie-wolf,) being the smartest of all the animals, undertook and succeeded in lighting the world very little less than the actual sun, and the people were very glad. But the animals of those times had the power of speaking, no less than the people, and *Sinchlèp*, being very cunning, interfered too much in their secret business, and in passing by during the day published the actions which the people performed in secret; wherefore, in anger, the people took *Sinchlèp* by the tail, which in that time was very long, and

fastening him to the ground, prevented his being seen any more. The crow then offered himself in place of *Sinchlèp*, but, being naturally so very black, gave little light, and, unable to endure the ridicule of the people, he retired with shame.

Finally *Amòtkan* sent one of his sons, called *Spakaní*, to enlighten the world. Before doing so, *Spakaní* wished to marry with a woman of the earth. In coming down from heaven, he landed first in the camp of the Flatheads; but the people seeing him, though very handsome, but so different from themselves, refused him admittance to their lodges. *Spakaní*, very much displeased, left the place, and seeing near the village a small cottage, inhabited by a family of frogs, he went in, complained of the people, and showed his desire to marry one of the frogs. There was one, very large and fat, and thought herself very happy to become the wife of the son of *Amòtkan*, and with one jump she became one flesh or incarnated with the cheek of *Spakaní*, and thus matrimony was celebrated or consummated. The people, on seeing the cheek of *Spakaní* so disfigured, and enraged at the presumption of Mistress Frog, tried with sticks to kill her, until the frog, very much ashamed, prayed her husband to leave the earth; and since he had come to make himself sun, to go up immediately, which he did; but to revenge himself for the contempt of the people, he does not allow them to see him clearly during the day, when he covers himself with a shining robe, and at the approach of night, he deposits his robe, crosses the waters under the earth, and then only shows himself as he is, with his wife frog on his cheek.

For these Indians, the sun and moon are one and the same thing; and this notion accounts for the reason why they have but one and the same word to express both sun and moon, namely, *spakaní;* and so also the spots in the moon are nothing else than a frog.

Having heard this story, I asked them (there were several chiefs among those present) whether they really believed the fable; and they answered that they did, not knowing better; then I asked them what they thought when they saw the sun and moon at the same time during the day. They all started, looked at one another in surprise, looked up, as though search-

ing the sun and moon, then joined in a general laugh, and covered their faces as if ashamed; and one of them, looking at me with only one eye across his fingers, said, "Well, we were all beasts, and like enough not one of us has ever observed and remarked what you say now." Since that time it was agreed to call the moon by the name of *spakaní skukuèz*, meaning the *sun of the night.*

As to the immortality of the soul, the end of the world, the recompense or punishment after death, they have the tradition that man in dying, dies only half—that is, the body; the other half (which they anciently did not know how to call it, but afterward their ancestors called *singapèns*) does not die, but the singapèns of the good ones go to stay with Amòtkan; though without knowing to what particular bliss, and the *singapèns* of the wicked goes to another place, not determined, having no other punishment than to be deprived of the company of *Amòtkan.* For wicked they intend liars and thieves, as they consider lying and theft, if not the exclusive, at least the greatest sins. Moreover, they said that the earth and the people have one day to come to an end, and that after this last day all the dead shall come to life again, and shall be placed in another land, better than the present, and that after such epoch the people shall die no more.

Notwithstanding the power and nobility of Amòtkan and Skòmelten, these were not the deities which the Flatheads worshiped, but Spakaní, the sun. After him came as geniuses the animals of every kind, the beaver, the crow, the deer, etc. But *Sinchlèp*, the prairie-wolf, was regarded the most powerful and favorable to mankind. To show the power and favor of *Sinchlèp*, their ancestors reported that there was a time when a large portion of the earth was inhabited by a set of giants, terrible men, who killed every one they met with, for which they were called *Nàtliskèliguten*, which in ancient language means "killers of men;" that *Sinchlèp*, in pity for the smaller people, went through all the earth, killed every giant, and converted them all into large stones; and even of late, when the Flatheads in crossing the mountains saw a basaltic rock standing upright, they said to one another, "*Keep aside, there is a Nàtliskèliguten killed by Sinchlèp;*" and every

large piece of silex they saw, was for them a fragment of an arrow of the "killers of men." As it oftentimes happens that one or more of these prairie-wolves come at night to howl near the village, there are still many, particularly the old women, who believe that *Sinchlèp's* howling foretells the arrival by the next day of somebody, either friend or foe, provided he only howls three times.

The worship which our Indians rendered to the sun, consisted in raising up toward the sun a morsel of meat or roots before eating them, and saying, "Sun, have pity of us, that animals and fruits may grow abundantly." In their particular distresses each one prayed to whatever first met his eyes, whether a tree or a stone.

In worshiping the sun, our Indians were not as fervent as the Blackfeet are even now; who, not satisfied with offering a parcel of their food, very often cut off large pieces of flesh from their bodies and offer them to their *Natósa*, (the sun,) particularly when they go to war. I asked an old man, well nigh a hundred years of age, if he prayed when he was young, and how he prayed. "Oh! yes," he answered, "every morning my mother took me into the woods, and having found a dry pine-tree, broken and rotten from old age, she told me, 'My son, go and rub yourself against that tree, and pray.' And so I did, saying, 'O my good tree! have pity of me, and let me live as long as you lived;' and I repeated always the same prayer; my mother did the same at another tree not far from mine, until our sore shoulders compelled us to put an end to our prayers."

Generally the prayers of our Indians consisted in asking to live a long time, to kill plenty of animals and enemies, and to steal the greatest number of horses possible; and this was the only instance when to steal was not a fault, but a great merit and bravery, since no man could ever hope to become a chief unless he had killed at least seven Blackfeet, and stolen twelve horses.

As it happens rather often that both people and animals are killed by lightning, so they regarded it as an evil genius; and the rainbow was for them nothing else than the same lightning looking down for prey amongst the people; they believed that

the only means to avoid being killed, was to move off immediately and to go and encamp at some miles' distance.

The remainder which may be said about the Flatheads is in common with other tribes of Indians, and I think it quite useless to repeat here what you have already acquired by other tribes.

I hope that this brief sketch, though so roughly and incorrectly written, may, amended and explained, prove interesting.

NOTE.—The above letter of Father Mengarini, though written some years ago, is now published for the first time.

The derivation of the word "Oregon" is still involved in obscurity; the account given here could not have been the true one, as the name was first given by Carver, who pretends to have obtained it from Indians on the *east* side of the Rocky Mountains. Wakkaw's account of the existence of the Flathead language south of the Rogue River Mountains is a mere invention; the most southern tribe of the Selish family being the Tilamooks, or Nsietshaws, who are on the coast just below the Columbia River, and whose numerals do not correspond with those given by him. The custom of flattening the head, however, exists among most of the Oregon tribes as far south as the forty-second parallel.

The frog wife story exists in a modified form among the Nisquallies and other tribes also, as does much of the remaining mythology of the Rocky Mountains Flatheads. It is noticeable that the Mexicans, according to Garva, quoted by Gallatin, (Trans. Am. Ethn. Soc., vol. 1, p. 97,) believed in the destruction of the world four times by various causes, on each occasion of which the sun also perished, so that the present is the fifth sun. G. G.

NOTES AND MEMORANDA.

America.

That the remains of man exist and may be discovered on this continent, as on the other, in connection with the remains, fossilized or otherwise, of extinct animals, is more than probable. But if so found, the evidence of the fact must be clear and complete, so that scientific deduction may be made with certainty. The alleged discovery by Dr. Koch of relics of human art in connection with the skeleton of the large male mastodon, now in the British Museum, at a place called Pomme de Terre, in Benton County, Missouri, has been made the basis of some speculations as to the antiquity of man in America. Dr. Koch described the bones as having been found "in a layer of vegetable mould, *covered twenty feet in thickness by alternate layers of sand, clay, and gravel*," and beneath them, he affirms, were found arrow-heads, and other primitive weapons. According to Dr. P. R. Hoy, in a late number of the *American Naturalist*, who, thirty years ago, visited the spot whence Dr. Koch obtained the bones of his mastodon, the excavation made in getting them out was not more than six feet deep, and the remains themselves were discovered in "scooping a hole" for obtaining drinking-water, at a depth of only about two feet beneath the surface. Doubt is consequently thrown on Dr. Koch's alleged discovery of relics of human art in this connection.

Mr. H. Douglas, of Waukegan, Illinois, reports, in the February number of the *Gardener's Monthly*, that during a recent dry season he was enabled to dig through his peat-bed to the depth of from six to seven feet, to what appeared to him to have been the shore or bottom of a lake, "composed of clear

sand, gravel, and small shells." In this he found embedded a boulder, "surrounded by charred sticks of wood, looking like the remains of a camp-fire," and the points of some poles that appeared to have been sharpened by some blunt instrument. Subsequently, about three rods from this spot, it is alleged, were found "the horns, a jaw-bone, and the leg" of an elk, which "were sent to Chicago, and pronounced to be the bones of an extinct species, probably identical with that found in the Irish bogs."

The Rev. Cyrus Byington's *Grammar of the Choctaw Language*, the manuscript of which is in the possession of the American Philosophical Society of Philadelphia, has just been published under the editorial supervision of Dr. D. G. Brinton. Mr. Byington was a native of Stockbridge, Massachusetts, and from 1819 to the close of his life, in 1868, was a missionary among the Choctaws, whose language he studied so thoroughly that when he died he was engaged in revising his grammar for the seventh time; and his family still have a Choctaw dictionary, embracing 15,000 words, which was left, like the grammar, in manuscript.

Another work of interest to philologists has been printed at Bogota, in New-Granada—a grammar of the Chibcha language, by Dr. Ezequiel Uricoechea. The title is, *Grammatica. Frases, Oraciones, Cathezisms, Confessonario y Boca Bulario de la Lengua Chibcha*, 1620. *Copiada del Manuscrito Orijinal por E. Uricoechea.* The volume fills 64 pages in 8vo.

There has lately been published in Lima, Peru, *Ollanta; or, The Severity of a Father and the Clemency of a King. A Drama in Three Acts, translated from Quichua into Spanish, with Notes.* By José S. Barrarca. The original Quichua text, which, however, varies in existing manuscript copies, was printed by Von Tschudi, (*Die Kechua-Sprache,*) in Vienna, 1853. Opinions differ as to the antiquity of the production. An English translation, by Clements R. Markham, F.R.G.S., has just been published in London by Trübner & Co.

Great Britain.

After long negotiation, the Anthropological and Ethnological Societies of London have been amalgamated under the name of "The Anthropological Institute of Great Britain and Ireland," with the following officers: President, Sir John Lubbock, Bart., F.R.S.; Vice-Presidents, Professor Huxley, F.R.S., Professor Busk, F.R.S., Mr. John Evans, F.R.S., Dr. Charnock, Dr. Barnard Davis, F.R.S., Mr. George Harris; Director, Mr. C. Staniland Wake; Treasurer, Mr. J. W. Flower, F.G.S.; Council, H. G. Bohn, Colonel Fox, Dr. Hyde Clarke, W. Blackmore, W. Boyd Dawkins, F.R.S., R. Dunn, David Forbes, F.R.S., T. McK. Hughes, Dr. A. Campbell, S. E. Bouverie Pusey, W. C. Dendy, Sir D. Gibb, Bart., Dr. R. King, Captain Bedford Pim, R.N., Rev. D. I. Heath, Dr. J. Beddoe, Dr. George Harcourt, Joseph Kaines, F. G. H. Price, and C. Robert des Ruffières; Secretary, J. F. Collingwood; Sub-editor of Journal, F. W. Rudler. The first regular meeting of the Institute was held February 14th, 1871, when Sir John Lubbock read a paper "On the Development of Relationships."

After some preliminary observations on the character of the family among the lower races of men, and the preponderance of the tribal tie, Sir John proceeded to discuss the conclusions drawn by Mr. Morgan from the valuable schedules of relationships collected by him and published by the Smithsonian Institution, especially with reference to his theory that the similarity between the Mohawk and Tamil systems indicated any ethnological affinity between those races, a conclusion which Sir John was unable to accept. He then proceeded to show how, in his opinion, that similarity had arisen, and traced up the gradual development of correct ideas on the subject of relationships from the system of the Sandwich Islanders, which is the lowest on record, step by step to that of the Karens, showing that in each system there are points which can only be explained on the hypothesis of its development from a still ruder condition. He then compared these actually existing systems with those which would be produced by a retrogres-

sion of social customs, and showed that the systems of the lower races all indicate progress, and that there are no instances of the existence of such a system as would arise in the case of degradation. He also laid stress on the fact that the social system is invariably in advance of the nomenclature of relationships, another evidence of progress as opposed to degradation. He showed that even in some European nations we have traces of an earlier lower condition, and that therefore in the systems of relationships we have an interesting proof of the social progress of man, and the gradual development of family ties.

At the second meeting of the Institute, March 20th, Mr. Hyde Clarke read a paper "On the Migrations of the Georgians, Circassians, and Amazons, and their connection with the Tibeto-Caucasian race," of which the following is an abstract: "By means of the application of the Georgian, Circassian, and other existing languages *in situ*, the existence of a previous Georgian or Caucasian population was shown, and that the extent of its area was much greater than could have been suspected. This Palæogeorgian language had a much nearer relation to the existing languages than the Hieroglyphic to the Coptic, or the Cuneiform to the Syriac and Persian, but it was in a different and earlier stage of comparative grammar than the Hebrew or Sanskrit, and to which the Caffre group presents some resemblances of structure. The connection of the language with the comparative mythology of the worship of fire and water, gives further evidence as to the diffusion of a population which had held empire over India, and thence to the Atlantic shores and these islands. Accepting as a doctrine the conquest of Palestine from the Canaanites and other races identified with the Caucaso-Tibetans, the period of empire would range from 3500 to 4500 years ago, during which the germs of the existing civilization were developed. This population belonged to the family which includes the Tibetan and Chinese stocks. Many portions of the Mosaic record, considered to have been interpolated during the Babylonian captivity, now appeared to be of the greatest antiquity. Many subjects, corollary to the main discoveries, were touched upon, including the connection of the Etruscan, the Phrygian, the lan-

guages of Asia Minor, the Akkaa with the Palæogeorgian, also the Lydo-Assyrian rock-cut monuments, the Cyclopean buildings, the so-called Druidic structures, the discovery of metals, etc."

In a paper recently read by Professor Goldstücker before the Philological Society of London, he produced linguistic evidence in support of the Sanskrit, and consequently our own, numerals having the following values: 1, "he," the third personal pronoun; 2, diversity; 3, "that which goes beyond;" 4, "and three," that is, "1 and 3;" 5, "coming after;" 6, "four," that is, "and 4," or "2 and 4;" 7, "following;" 8, "two fours," or "twice four;" 9, "that which comes after," (cf. *nava*, new;) 10, "two and eight." Thus, only 1 and 2 have distinct original meanings. After giving these, our ancestors' powers needed a rest; then they made 3, and added it to 1 for 4; then took another rest, repeated the notion of 3 in 5, and the notion of 4 in 6; then rested once more, and again repeated the notion of 3 and 5 in 7; took another rest, and got a new idea of two 4's for 8; but for 9, repeated for the fourth time the "coming after" notion of 3, 5, and 7; while for 10 they repeated for the third time the addition-notion of 4 and 6. The professor insisted strongly on this seeming poverty and helplessness of the early Indo-European mind. He did not put forward the above meanings of the numerals as new, though he believed that the history of most of the forms of their names was so. The anomalous form of the Sanskrit *shash*, six, first set him at work on the numerals, and the Zend form *kshvas* led him to the true explanation of this, and thence to that of the other numerals.

Clements R. Markham, Esq., Secretary of the Royal Geographical Society of London, has just edited, from the reports of the British Surveys of India, a most important memoir, containing, among other matter, a section on the archæology of that remarkable region. It is an admirable summary of the labors of Sir W. Jones, Messrs. Charles Wilkins, Henry Colebrooke, Francis Gladwin, William Chambers, Colin Mackenzie,

Buchanan Hamilton, H. H. Wilson, Thomas Daniell, James Prinsep, General Cunningham, Walter Elliot, James Ferguson, Edward Thomas, etc., etc.

Germany.

On the first of April, a meeting of the German Anthropological and Ethnological Society took place at Mayence. The society was started last year at Innsbruck, and already numbers five hundred and seventy members. The transactions which took place were represented by five hundred and fifteen voices, from Berlin, Hamburg, Leipsic, Freiburg, Würzburg, Munich, Vienna, Bonn, Mayence, and other places. Professor Virchow, of Berlin, was elected to the presidential chair; Professor Ecker, of Freiburg, and Professor Schaaffhausen, of Bonn, as Vice-Presidents; and Professor Lemper, of Würzburg, as General Secretary. The first general assembly of the society will take place at Schwerin in September next.

An Anthropological and Ethnological Society (Gesellschaft für Anthropologie, Ethnologie und Urgeschichte) has recently been organized at Berlin, and Professor Virchow has been chosen President. The Vice-Presidents are Dr. Bastian, President of the German Geographical Society, and Professor Alexander Braun; the Secretaries, Professor Hartmann, Drs. Keneth and Voss; and the Treasurer, Gerichtsrath Deegen. The society, designed as the principal branch of a general German Society of the same name, was first organized at meetings in November, and the first regular meeting was held on the 11th of December, when a lecture was delivered by Professor Virchow.

To the late Dr. Gustav Klemm, of Leipsic, belongs the merit of having first exhibited under one general broad view, the material and, of course, also the intellectual development of the whole human race. For accomplishing this object he was active nearly his lifetime, both as an author and a collector. His large work, *Allgemeine Culturgeschichte*, (General

History of Culture,) and various minor writings of a kindred character, amply testify his indefatigable zeal in literary research, while his collection of manufactures from all parts of the world (brought together during a long period, by purchase and donations) represents the march of human progress in all its phases, from the lowest to the highest. The rude tool of flint and bone has here its place, as well as the plow and the loom. One may see the boomerang of the Australian savage, and also the battle-axe and cross-bow of past centuries. The European pre-historic periods of stone and bronze are illustrated by many and valuable specimens, and the products of art of classical antiquity are no less represented than those of mediæval and later times. Weapons, utensils, dresses, etc., of modern, uncivilized races are abundant. This remarkable collection, though possessing the principal features of other ethnological and archæological museums, differs in many points from the latter, on account of the wider scope of its founder.

The *Museum Klemmianum* is still owned by the family of the deceased *savant*, but has lately been offered for sale; and we learn from an elaborate article published by Dr. Obst in an extra sheet of the *Leipziger Zeitung*, that a committee has been formed at Leipsic to provide the means for purchasing the collection, which is to form hereafter the nucleus of a museum devoted to anthropology, in the widest conception of the term. As the breaking up and scattering of the Klemm collection would be a serious loss to science, it is to be hoped that the praiseworthy and patriotic undertaking of the committee will be crowned with success. C. R.

In the first number of the *Zeitschrift fiir Ethnologie*, of this year, is a list of works bearing on Mr. Darwin's theories, compiled by Spengel, which occupies twelve closely-printed octavo pages. First comes a list of translations into German of *The Origin of Species*, of *Fertilization of Orchids*, and of *Variation of Animals and Plants;* next forty-three original German works, criticising and carrying out the Darwinian theory. These are followed by about an equal number of books which refer to the same subject incidentally, though sometimes at

considerable length. Among these we find Kupffer's *Essay on the Relation of Vertebrata to Ascidians*, Von Baer's lectures, Carus's *Natur und Idee*, and Rütimeyer's *Herkunft unserer Thierwelt*. The fourth list is a most valuable one of reviews, magazine articles, and other scattered papers published in Germany on natural selection and the descent of man. Books devoted to the latter subject are next enumerated separately; and then translations into German of the kindred writings of Huxley, Lyell, Wallace, Agassiz, and Bates. Last comes a classified catalogue of all the works on Darwinism which have been published outside Germany, in England, France, Holland, and Italy. This list may be advantageously compared with that given by Mr. Darwin himself, in the fifth edition of the *Origin of Species*. It will be invaluable to every student of the theory of evolution, and is a remarkable proof of the amount of scientific thought and work (as well as of some that is not scientific) which that great naturalist's writings have called forth.

A communication to the German Society of Anthropology during the past winter invokes the attention of all persons interested in science to the importance of making use of the opportunities for ethnological research furnished by the war between France and Germany; and the author, while acknowledging the difficulty of attending to such matters during military operations, expresses his earnest hope that every possible effort may be made to secure a good series of the skulls and brains of the African tribes brought by France into the conflict, and especially those of the Turcos. We have not yet heard to what extent this suggestion was heeded by those who had the opportunity.

Italy.

The first part of the new Italian *Archivio per l'Antropologia e la Etnologia* has appeared at Florence. Dr. Paolo Mantegazza edits the anthropological part of the book, and Dr. Felice Finzi the ethnological part. It contains an introduc-

tory essay on anthropology and ethnology, by Dr. F. Finzi, and several other papers, as follows:

"Una Questione d' Psicologia Sociale." Del Dr. A. Herzen. "Dell' Indice Cefalospinale." Di Paolo Mantegazza, (Con Tavola.) "Una Nota sulli Indice Cefalospinale." Di P. Mantegazza. "Esistenza di una Fossa Occipitale Mediana nel Cranio di un Criminale." Del Prof. C. Lombroso. "Intorno alle Cause Determinanti i Numeri Proporzionali dei due Sessi nelle Statistiche delle Nascite." Del Prof. G. Boccardo. "I Tasmaniani Cenni Storici et Etnologici di un Popolo Estinto." Del Prof. E. H. Giglioli, (Con Tavola.) Notizie. Bibliografia.

A somewhat remarkable discovery of human and animal remains is announced by Professor Capellini, of Bologna, in a grotto in the island of Palmeria, the access to which is difficult and dangerous. Here he caused excavations to be made, and the result was the discovery of numerous flint and stone implements, the workmanship of which showed that they belonged to the earliest period of the stone age. Besides these wrought implements and various other objects brought into the cavern by its human occupants, he found a considerable quantity of bones of animals mingled with bones of human beings. The condition of these latter bones, he says, "would justify the inference that the grotto had been inhabited by anthropophagi, and that the Italians of that epoch were cannibals, like their contemporaries in Belgium, France, and Denmark."

"Among the human bones were found those of women, and part of the jawbone of a child some seven or eight years of age. Some of these bones were entire, others were partially calcined. In the centre of the cave it was possible to discern traces of a fire-place. Professor Capellini says, 'Whoever has busied himself in prehistoric researches, whoever has read Spring's excellent work on the Chauvaux cavern in Belgium, and the writings of other authors on the subject of the caverns in France, will not hesitate to admit that the discoveries in the island of Palmeria prove that the Italians were, as I have

said, man-eaters. For the present it will be sufficient for me to direct the attention of naturalists to the subject. The Cyclopeans spoken of in the fable were probably these cannibals.'"

Austria.

The Anthropological Society of Vienna was founded February 13th, 1870. Its opening meeting was held in the Consistorial Hall of the University, when the President, Professor Karl Rokitansky, delivered an address.

Spain.

The Spanish Anthropological Society was organized and legally established March 16th, 1865.

BOOKS AND DONATIONS RECEIVED.

THE Theory of the Arts; or, Art in Relation to Nature, Civilization, and Man. Comprising an Investigation, Analytical and Critical, into the Origin, Rise, Province, Principles, and Application of each of the Arts. By George Harris, F.S.A., of the Middle Temple, Barrister-at-Law, Author of "Civilization Considered as a Science." 2 vols. 8vo, pp. 328, 306.—*From the Author.*

Civilization considered as a Science, in Relation to its Essence, its Elements, and its End. By George Harris, F.S.A., Barrister-at-Law, Author of "The Life of Lord Chancellor Hardwicke," "The True Theory of Representation in a State," etc. 1 vol. 8vo, pp. 442.—*From the Author.*

The General Principles of Organization, and the Evolution of Organic Forms. First Annual Address before the Alumni Society of the Medical Department of the University of Nashville. Delivered in the Hall of the Medical College, February 23d, 1870. By Jerome Cochran, M.D., Professor of Chemistry in the Medical College of Alabama. 8vo, pp. 53.—*From the Author.*

Honduras: Descriptive, Historical, and Statistical. By E. G. Squier, formerly Minister of the United States in Central America. With a Map. 1 vol. 12mo, pp. 278.—*From the Author.*

Flint Chips; a Guide to Pre-Historic Archæology, as Illustrated in the Collection of the Blackmore Museum, Salisbury, Eng. By Edward T. Stevens, Hon. Curator. 1 vol. 8vo, pp. 593.—*From the Museum.*

Travels in Central America, including Accounts of some Regions unexplored since the Conquest. From the French of the Chevalier Arthur Morelet, by Mrs. M. F. Squier. Introduction and Notes by E. G. Squier. 8vo, pp. 430. With Maps and Illustrations.—*From the Translator.*

Proceedings of the Philosophical Society of Glasgow. Vol. VI., No. 4; Vol. VII., Nos. 1 and 2. 1867–1870.—*From the Philosophical Society of Glasgow, Scotland.*

Compendio de la Historia de Yucatan. Por Don Crescencio Carrillo. Merida. 1871.—*From the Author.*

Smithsonian Contributions to Knowledge. Vol. XVII. City of Washington. 1871.—*From the Smithsonian Institution.*

Analytical Alphabet for the Mexican and Central American Languages. By Carl Hermann Berendt, M.D. New-York. 1869. Illustrated. Last publication of the American Ethnological Society.—*From Henry T. Drowne.*

Address of George Bentham, Esq., F.R.S., President of the Linnean Society. London, May 24th, 1867.

Memoir of C. F. P. Von Martius. By Charles Rau.

Mittheilungen der Anthropologischen Gesellschaft in Wien, for September 16th, 1870.

Wissenschaftlichen Beilage der Leipziger Zeitung, for December 29th, 1869. No. 104.

Ancient Earth-Forts of the Cuyahoga Valley, Ohio. By Colonel Charles Whittlesy. Cleveland, Ohio. 8vo, pp. 40. Maps and Plans.—*From the Author.*

Fourth Annual Report of the Trustees of the Peabody Museum of American Archæology and Ethnology.—*From Professor J. Wyman, Curator.*

Brazilian Rock Inscriptions. Extract from *American Naturalist.—From the Author.*

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CONTENTS OF NUMBER I.

	PAGE
I.—Certificate of Incorporation of the Institute, .	1
II.—Constitution and By-Laws, ...	6
III.—Proceedings Preliminary to the Organization of the Institute, ...	14
IV.—Proceedings of First Regular Meeting of the Institute, ...	21
V.—Progress of Anthropology in Europe and America. Dr. Paul Broca, ...	22
VI.—Von Martius on South-American Ethnology. Prof. Charles Rau, ...	43
VII.—Antiquities from the Huanu Islands of Peru. E. G. Squier, ...	47
VIII.—Sculptured Rocks, Belmont Co., Ohio. J. W. Ward,	57
IX.—Canoe in Savannah-River Swamp. C. C. Jones, Jr.,	67
X.—Trepanning among the Incas. Dr. Paul Broca, .	71
XI.—Miscellaneous, ...	77
XII.—The Arch in America. E. G. Squier, ...	78
XIII.—Indians of Oregon, etc. Prof. Mengarini, ...	81
XIV.—Notes and Memoranda, ...	89
XV.—Books and Donations Received, ...	99

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